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GASTRIC DISTURBANCES CAUSED BY HERNIA.*

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Detroit.

Any and every kind of hernia causes more or less gastric or intestinal trouble. The common large inguinal herniae, if reducible, are responsible for flatulence, constipation, pain in back and groins; if adherent, all these symptoms become more pronounced. Omental adhesions in a hernia can make a patient so miserable by loss of appetite and indigestion, that serious loss of weight results, and often malign disease has been diagnosed where afterwards radical operation of the hernia removed all the intestinal disorders. It has to be born in mind that if any adhesions exist between hernia-sac and contents, a truss will usually aggravate all symptoms by pressure on the unreduced parts. Generally speaking, therefore, in adherent hernia a truss is contraindicated. Of late years, since the radical operations for hernia are done so frequently, it is an experience with every surgeon that a patient returns a few months after the operation with the happy statement, "Doctor, since my operation I do not need any more physics. I have no gas on my stomach and my rheumatic pains are gone."

I will not speak about the serious intestinal symptoms caused by acute strangulation of ruptures since the violent symptoms of intestinal obstruction and gangrene are well known to every medical man.

Post-operative hernia produces very severe intestinal disturbances; wherever located, post-operative ruptures are most troublesome to the patient. As they usually occur in badly healed wounds after drainage or suppuration, adhesions are always present with their sequelae: constipation, feeling of fullness, gas, symptoms of partial obstruction increasing to spells of vomiting and total obstruction. Patients with large surgical herniae are often total invalids. The lesson of this is obvious: first, in a prophylactic way, avoid drainage as much as possible, if drainage is necessary, drain if possible through a special stab-wound, while the original incision is sewed up tightly. Appendicitis, cholecystitis, etc., should be operated upon early to avoid the necessity of drainage with all the dangers of post-operative hernia. If a post-operative hernia has developed, exact suture of all the parts involved is indicated. Unfortunately, post-operative

*Read before the tenth Annual Meeting of the American Gastro-Enterological Association, June 3, 1907.

hernia occurs more frequently in patients with plenty of adipose tissue. The reason for this is clear: fat, with its poor circulation, is an ideal breeding place for infectious germs, and allows more sloughing than the well-nourished tissues of lean and muscular individuals. This point renders the prognosis of secondary operations for surgical herniae more doubtful. Usually after the strong fasciae and muscles have sloughed for a great distance, it is hard and dangerous to make such large incisions as necessary to expose the edges of the muscles surrounding the hernia-ring, and if exposed, it is quite difficult on account of tension to bring the exposed muscles together. In the past few years I have had very good results in several cases, operated upon several times previously without success, by applying the principles of the Mayo method of operating for umbilical hernia, to post-operative hernia, namely, transverse, not longitudinal incision; second, removal of all adipose tissue around the hernia-ring; third, uniting the tough and resisting abdominal fascia by overlapping the lower part of the fascia under or over the upper part.

Pardon my talking so much surgery before you, but I believe this to be a very important subject for many sufferers from post-operative hernia; and furthermore, the symptoms of most of these patients are such that they will call on our stomach specialists for relief. Therefore, I thought it wise to mention the prophylactic and final treatment of this kind of hernia. A few cases of post-operative hernia follow for illustration:

(1.) Mr. R. A short and very fleshy wholesale whiskey dealer, 32 years old, who was operated upon for an acute attack of appendicitis in 1900. The wound did not heal by first intention. Extensive sloughing of muscles and fascia took place. Ever since, he complained of attacks of abdominal pain, vomiting, feeling of fulness and constipation. All the physicians,

among them some gastro-enterologists, advised him to stop drinking and to take cigars instead of drinks, if visiting customers. Still in spite of obeying orders, the attacks of vomiting continued. Abdominal supports were applied to keep the abdominal organs from protruding through the abdominal incision. Finally Mr. R. came to me ready to follow my advice, given long before, to have his surgical hernia sutured. The operation was done on April 5, 1903. Very dense adhesions were found, causing a real kink in the neighborhood of the ileo-colic juncture. The wound healed by first intention. The intestinal disorders have not reappeared, that is for three years.

(2.) Mrs. S. Wife of a grocer. 40 years old, short and fleshy. Has a very large post-operative hernia after a radical operation for umbilical hernia. The old style longitudinal incision was applied and carried far down in order to resect some cystic ovaries also. This operation was most disastrous, as suppuration, sloughing of muscles and fascia, and a large abdominal hernia, as large as a man's head, followed. The intestinal disorders caused by the hernia, pain, vomiting, dragging sensation, disabled the woman, who is the mother of a large family. She was bedridden most of the time; the most expensive abdominal supports did not relieve her sufferings. Two surgeons made attempts to suture the hernia by exposing the muscles by a longitudinal incision, and uniting them by suture. Both attempts failed. I first saw this lady on Sept. 6, 1906. She was rather disinclined to have any more cutting done. Still she submitted once more on Oct. 11, 1906. I operated her using the method outlined before; transverse incision, removal of all fat around hernia and overlapping suture of fascia. The result is no hernia: no need of abdominal support, no intestinal disorders and re-established ability to tend to her family duties, and besides to help her husband in selling groceries.

(3.) The third case I mention because I am able to illustrate the same by photographs. This woman, 30 years old, went through an unnecessary ovariotomy in 1899. She lost her ovaries, and acquired, thanks to the asepsis of the ovariotomist, a large abdominal hernia, as picture No. 1 shows. She had most distressing abdominal symptoms, nausea, fainting spells, etc. As she was obliged to earn her own living as a dry-goods clerk, she was practically dependent upon

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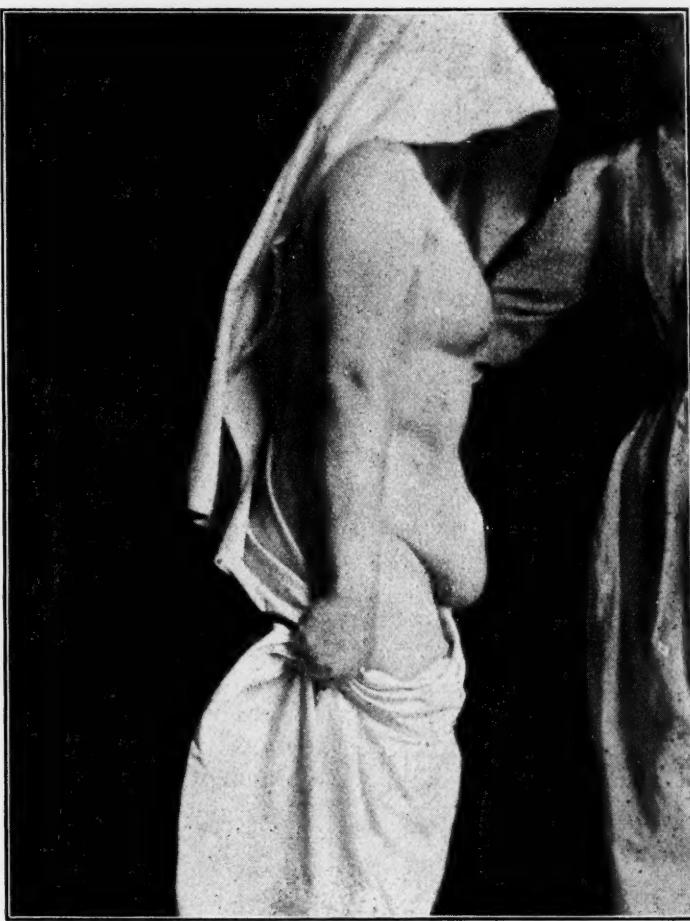
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charity; the hernia disabled her from working. I operated this lady on March 16, 1907, by the same method. The second picture shows the result. She is working again as dry-goods clerk and has no more stomach trouble.

I will mention only by name the intestinal obstructions caused by the rarer

four kinds: (1) The so-called incomplete inguinal hernia. (2) The small femoral hernia. (3) Umbilical hernia. (4) Epigastric hernia, in or lateral to the linea alba, and under this chapter also the "pre-peritoneal lipoma."

(1) The incomplete inguinal hernia is characterized by the following findings:



Mrs. L., Post-operative Hernia. Side view before operation.

forms of hernia, the hernia in the duodenjejunal fossa, (Drietz) the hernia ileo-cecalis, and the hernia obturatoria, and lumbalis (Trigonum Petiti.)

The main attention of my paper will be given to intestinal disorders caused by small herniae that are not easily discovered. Of these we have to consider

the finger can be introduced through the inguinal canal, into the internal ring, that is usually very patent. No herniasac can be felt in the inguinal canal, but in coughing and straining the finger feels a pronounced propulsion of peritoneum and abdominal contents into the canal, to feel them return into the abdo-

men immediately if the intra-abdominal pressure returns to the normal. Not enough attention has been paid to this hernia in this country. In Germany, owing to the fact that the inguinal canal is always thoroughly investigated in the examination of recruits for the army, and because nearly every physician, on account of general military duty, is familiar with the rules of military examination, on account of these facts, I must say, incomplete hernia ("Bruchanlage") is not so frequently overlooked by physicians over there as here. Now these small herniæ, at the start, are often the cause of most troublesome symptoms, the most pronounced of which is pain. The pain is different in character; some complain of dull continuous pain, radiating from the inguinal region to the back, others have more sharp colicky pains. The pain, no doubt, is due to strangulation and caused by slight injuries to the omentum entering the inguinal canal by the sharp fascia forming the internal ring. Besides the pain, gas, constipation, feeling of fullness is sometimes complained of. If the incomplete hernia is in the right inguinal canal, it has been mistaken for returning attacks of appendicitis. In other cases "Neuralgia of ilio-inguinal or femoral nerve," or neuritis has been diagnosed where a small inguinal hernia was the only cause for complaint. The following two instances are only mentioned for the sake of example; cases of this kind could be narrated by the dozens.

Mr. R., a merchant, 35 years old, came to me complaining of frequent colicky pains in the right inguinal and lower abdominal regions. A prominent surgeon had diagnosed "Chronic Appendicitis" and removal of appendix was recommended. On examination, I found the appendiceal region not painful on pressure, but the finger in the inguinal canal detected an incomplete inguinal hernia. On every cough the small hernia sac was propelled against the finger, and these maneuvers were quite disagreeable to the

patient. "That is my old pain, doctor," he exclaimed. A small soft padded truss was fitted with the result that this patient has had no more appendicitis in the last ten months.

Mr. S., a rich manufacturer, 42 years old, quite fleshy, complained for years of dull pains in the lower abdomen, radiating to the back. He had worn a truss when a child, but was considered cured from rupture. Was treated for his pain with hot and cold bath, manual and vibratory massage, X-, violet and Finsen rays, homeopathic and allopathic medicines. On examination I found a double incomplete inguinal hernia. A double truss gave him immediate relief from his neuralgia, and I am sorry incidentally, took away a source of income from several osteopaths and light specialists.

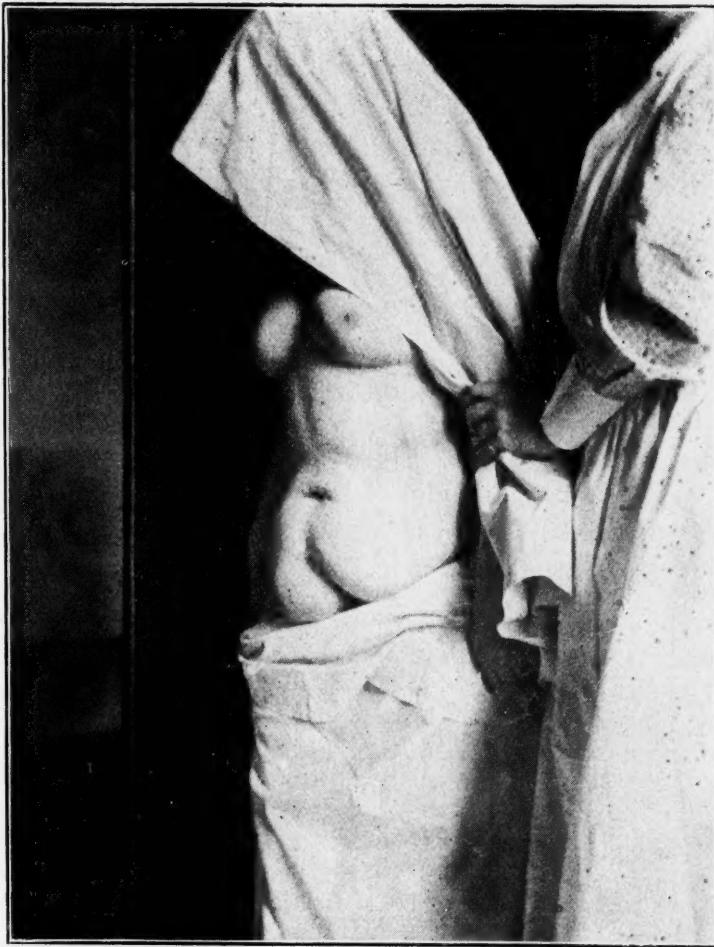
(2) The small femoral hernia causes sometimes similar symptoms to those just named, but should be mentioned especially for two reasons: First, because the symptoms may become most alarming, and second, since a small femoral hernia is not so readily detected as its inguinal neighbor. Lindner,¹ in his splendid work on hernia, pays special attention to the small femoral hernia. The same occurs usually in the female. The findings are either a large open femoral ring, without hernia protrusion, or a small femoral hernia. In this place we also sometimes find a fatty tumor, a so-called sub-serous lipoma, filling the femoral ring. This lipoma will interest us more in the epigastric variety of hernia and will be considered more fully there. The symptoms caused by femoral hernia are, after Lindner, indigestion, loss of appetite, flatulence, colicky pains, nausea and feeling of fullness. If the trouble is allowed to continue for some time, nervous symptoms, headache, fainting, and emaciations may occur. The symptoms are again due to pinching of abdominal contents on the tough femoral ring, slight strangulations, etc., and are curable only by trusses or radical operations.

(3) Umbilical Hernia. The hernia in the upper part of the abdomen, though

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much less frequent than the inguinal or femoral herniæ, play a much more important role in producing gastric trouble than the latter. Umbilical hernia in small children produces, to my knowledge, hardly any symptoms from side of the stomach or intestines, unless it is

tween omentum and hernia-sac are nearly always present. Hence, no wonder that all these patients complain of gastric pain, fullness and constipation. On account of the adhesions mentioned, a truss usually aggravates symptoms. Fortunately in late years radical opera-



Mrs. L., Post-operative Hernia. Front view before operation

the rare and quite dangerous kind of large hernia into the umbilical cord. In adults, umbilical hernia always produces gastric disturbances, some of them of quite serious nature. Large umbilical hernia is usually met with in fleshy people; adhesions in umbilical hernia be-

tions of umbilical hernia, after Mayo's method, have been quite successful, even in very fleshy patients. The older ways of operation were mostly followed by return of hernia, stronger adhesions and more aggravated gastric disturbances. I had the pleasure, only two weeks ago, to

see with your secretary such a sufferer from an old umbilical hernia.

Mrs. S., a very fleshy lady, 45 years old, had spent nearly half of the last 14 years, since her first and only confinement, in bed. During her pregnancy she acquired an umbilical hernia. Later a laparotomy performed for ovarian trouble added a second post-operative hernia in the middle line over the symphysis. Two different attempts to suture these herniae were not successful. The umbilical hernia contains, no doubt, a big piece of adherent omentum. Touching either the navel or the post-operative hernia causes immediate eructation of gas. The patient suffers from abdominal pain, feeling of fulness and flatulence, and all dieting has helped but little. She is practically an invalid on account of the abdominal disturbances caused by her two herniae.

Besides these large navel ruptures, which are usually acquired in later life, we have another variety: a small hernia, often not larger than a pea, protrudes through a small hernia ring in the middle of the tough fibrous tissues that form the physiological scar of the umbilicus. On account of the natural umbilicus resembling a hernia, this variety is easily overlooked, and still it is important. The very sharp and hard umbilical tissue pinches protruding abdominal contents in such a way that in several cases I have seen attacks of vomiting, with perspiration and quick pulse, caused simply by a short pinching of omentum in such a tough umbilical hernia ring; for instance:

Dr. C. V., physician, 27 years old. When a baby, often had attacks of pain in region of umbilicus, that were sometimes accompanied by nausea and vomiting. His father, a physician of prominence, then consulted an eminent surgeon, thinking a slight umbilical protrusion might be responsible for these attacks, but the surgeon did not think so. During youth the attacks of pain occurred only at rare intervals, but the patient had no more vomiting or nausea. After October, 1906, the attacks became very frequent and violent. He had suffered from a severe bronchitis previous to this time and attributed the severe

spells of abdominal pain to the strain of coughing. I saw this young physician in two or three of these spells. He was suddenly taken with severe abdominal pain around the navel, perspiration covered his face, vomiting occurred. Several times during the next few hours there was pronounced tenderness around the umbilicus. The temperature rose to above 100, the pulse to 100. All symptoms subsided usually inside of ten hours. Sometimes vomiting alone without pain would occur, and was so imperative that patient had to vomit wherever he happened to be. We were doubtful for a little time if a smallest umbilical hernia we detected on the patient was responsible for his violent attacks. Appendicitis was suspected on account of the slight rise in temperature, but the attacks passed away too quickly. The stomach examination gave practically normal findings. So finally after these spells had occurred at intervals for 1, 2 or 3 days for three months, the patient was operated upon December 24, 1906. The umbilical hernia was closed up. Patient has had since then, no other attack like the ones described before the operation.

Cases of milder gastric disturbances than the case just mentioned, caused by a small umbilical hernia, I have seen frequently. One more may serve for illustration:

Mr. A. S. A well-to-do club-man, about 34 years old, complained that the rich meals and high balls in his club did not agree with him but caused "gas on his stomach," feelings of fulness, and slight pain in region of stomach. Our best men in Detroit examined his stomach, put him on diet and gave him all kinds of treatment. Dr. Chas. Anderson discovered that the rather fleshy young man had a small umbilical hernia and referred the patient to me. I operated him on May 15, 1906. Since his recovery, he again enjoys the fame of being one of the best eaters and drinkers in his club.

Epigastric Hernia and Peritoneal Lipoma.

Under epigastric hernia we understand hernia protruding in or close to the linea alba between Xiphoid process and umbilicus. Weber, an old German professor in Halle, said more than one hundred years ago that many an obscure

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stomach trouble may be caused by a small epigastric hernia. Since then, in recent years, Lindner¹, Cuttner², the late D. D. Stewart,³ of Philadelphia; Cumston⁴ of Boston, Witzel⁵, Aaron⁶ and others, have contributed articles on this subject. The hernia occurs very rarely below the umbilicus, mostly above

in the middle between Xiphoid process and the navel, seven above the umbilicus, one below the umbilicus and one lateral below the right costal arch (intramuscular.) It seems therefore, that the place right above the umbilicus is the favorite seat of these herniae.

Congenital and acquired defects in the



Mrs. L., Post-operative Hernia. Result after operation.

and three places seem to be the favorite ones; one is right above the umbilicus, one-half to one and one-half inches distant from the same. Second, midway between the Xiphoid process and navel; third, close to the Xiphoid process. As to frequency in these different places, I have data of sixteen cases. Of these, three occurred close to Xiphoid process, four

linea alba seem to be responsible for these hernia. The places where tendinous insertions cross the upper portion of the recti muscles seem, according to some authors, to dispose to epigastric hernia. Congenital weakness of the white line seems to be a rare causative factor, as most of these herniae occur between the ages of 20-50 years. An

acquired weakness of the white line is mostly to be held responsible, though it does not seem that a single trauma ever brought suddenly such a rupture, but it seems to require a frequent strain on this strong aponeurosis to produce weak spots, for these herniae are mostly found in hard working people. Ewald saw only one case in his private consultation practice, while Kuttner in Ewald's dispensary among hard working people, saw twelve cases among five thousand three hundred patients. Hard work is also the reason that epigastric hernia occurs more in the male than in the female. After Roth, 66% occur in the male. I never have seen a typical epigastric hernia in a woman, although I have notes on sixteen cases.

Some claimed that loss of fat was an important factor in the etiology of epigastric hernia, (Witzel) by producing weak spots in the white line; others claim just the opposite, that adiposity predisposes to such weakness, the fat replacing in some places the resistant fibrous tissue. (Lucas Champonniere, Kuttner). An important etiological factor is certainly the so-called preperitoneal lipoma. (Others call it subserous, which is wrong, as it is in front, not under or back of the peritoneum.) This lipoma is usually a small fatty tumor found right in front of the peritoneum, from pea to walnut size. It usually penetrates through a hole in the fascia and is adherent to the peritoneum. In breaking up this peritoneal adhesion the peritoneum is always opened and not infrequently we see the omentum adherent at the same place. Therefore, many believe that this peritoneal lipoma is of intraperitoneal origin, a fat piece that slipped through a small defect and became more or less detached. The lipoma predisposes for epigastric hernia, as Kuttner says, "Epigastric hernia follows the route of the lipoma." The lipoma often connects by a band with the omentum,

It is hard to say in a given case if only lipoma, or lipoma plus hernia are present. Niehus⁷ found in thirty-eight cases, six times no hernia protrusion, that is no hernia-sac; only a piece of fat was formed in a split of the peritoneum; thirty-two times a more or less pronounced hernia-sac was present. Practically it matters little if there is only lipoma or hernia. It is important to know that if preperitoneal lipoma produces symptoms, these symptoms are identical with those produced by fully developed hernia. Hence the treatment of both conditions is the same. This no doubt, is due to the fact just mentioned, that the lipoma often connects with the omentum by adhesions; bands have been observed going from the lipoma along the round hepatic ligament to the liver, to the gastro-colic ligament and stomach wall. The contents of the epigastric hernia is mostly omentum; the old expression stomachocele ("Magenbruch") is wrong; stomach is only found exceptionally in these hernia, and small intestines were only found four times in thirty cases. In the other twenty-six cases, omentum was the contents of the hernia. (Niehus.) These herniae and lipomas are usually small. An exception is a case of Gascoyen⁸, who removed a lipomatous hernia weighing twenty-five pounds from this neighborhood. In opposition, the lateral epigastric herniae are usually of larger size. Real strangulation of intestines of these herniae is exceptional; only Gussenbauer⁹, reports a case where he found under a lipoma in an epigastric hernia a strangulated necrotic piece of intestine. Gentlemen, the reason I went so fully into the pathology of these herniae is that these small lipomatous herniae are producing very frequently symptoms that are mistaken for symptoms of gastric ulcer, gall stones, etc., symptoms I thought we would understand better by going somewhat thoroughly into the anatomy of the her-

nia. Since we watch for these hernia, we find them frequently causing abdominal disorders. Six or eight years ago, authors thought it worth while reporting one such case. Now in the last two or three years I have seen in my own small private practice, three to six such cases every year.

Let us consider the most important question; what gastric symptoms do epigastric herniae and lipomas produce? Epigastric hernia and lipoma may exist for a good many years without causing any symptoms. Then suddenly, symptoms may arise, the principal of which is pain. The pain may be right in the hernia, or radiate toward liver and stomach and into the back. The pain is sometimes dull and more or less permanent in character, other times it comes in spells resembling colics. Indeed, this pain has been often mistaken for gall-stone colics. The attacks of pain may come daily or in shorter or longer intervals. Vomiting is not always present, but in many cases quite prevalent. The pain may be aggravated after eating. Appetite is usually good, but the feeling of fullness and pain after eating makes the patients careful in their meals. Many of these sufferers become neurasthenics and hypochondriacs. The gastric secretion should not be much altered by the presence of epigastric hernia. Kuttner does not believe that epigastric hernia alone should cause abnormal secretion. Among twelve cases, he mentions once dilation of stomach, three times gastritis chronica mucosa. Botland found in 22% of his cases hyperacidity; Aaron in one case anorexia with loss of weight of twenty-five pounds. Kuttner never found any of the organic acids, lactic, butyric acid, etc., present. Patients with epigastric hernia are usually constipated. This with pain, nausea, and feeling of fullness, are the main symptoms. In one case, of Lathrop⁹ the spells of colic were accompanied with jaundice. The pa-

tient was operated upon, the gall bladder was found healthy, and complete recovery followed the operation for the epigastric hernia.

The diagnosis of epigastric hernia is easy; the hernia can be palpated readily, and except in very fleshy patients even smallest hernia can be felt if the patient in standing position bends forward to relax the recti muscles. I make it a rule with all patients complaining of stomach trouble, to pass my finger-tips from the Xiphoid process down the linea alba, in order not to overlook such small hernia and lipomas. Percussion of the hernia is usually of little value on account of size and contents. Little's so-called "Spritz phenomenon," that is a thrill felt over the hernia if the patient coughs, I could never detect.

As to the treatment, if the hernia can be reduced, a bandage or adhesive plaster strapping may be tried. I have seen that a well applied adhesive plaster removed all troublesome symptoms immediately. But usually these epigastric herniae, on account of their size and the peculiar lipoma formation and adhesions, are not benefited by trusses and bandages. Surgical removal, ligating of all adhesions, and good suture, has had in epigastric hernia most splendid results; and that in patients who were often treated for years for gastritis, gastric ulcer, gall stone colic, intercostal neuralgia, etc., the small epigastric hernia being overlooked. Operation for the epigastric hernia nearly always removes all the gastric and intestinal symptoms present; only a small minority of patients operated continued to complain after the operation, but we must not forget that many of them were neurasthenic and hypochondriacs before being operated, and that many of them, as Stewart said, have acquired the pain habit. Of Kuttner's five cases operated by Lindner, four were cured of all symptoms. Of six of my own cases, only one continued

to complain about some of his gastric symptoms. Of Lepage's seventeen operations, one had a relapse of the hernia. Whether the formation of new adhesions is responsible for such rare relapses is hard to say. I will illustrate the importance of looking in obscure gastric complaints for epigastric hernia by only one of my cases.

Mr. S., 48 years old, sexton. Since two years he complained of colicky pains in the epigastrium, returning in intervals of from two to three days but becoming very frequent in the last three months. The pains are very sharp, lasting a few hours, to become duller and disappear in one or two hours. In the last few months, the pain is more severe after eating, and vomiting occurs with them, so that patient was afraid to eat and lost considerable in weight. He was treated for gastric ulcer, and a prominent practitioner had expressed the opinion that a malignant trouble might be present.

I first saw the patient on April 20, 1906, and discovered a small epigastric hernia one inch above the umbilicus. The hernia was about one inch in diameter and could be easily reduced. An adhesive plaster strap was applied and gave immediate relief. An abdominal bandage was tried but could not keep the hernia in place; therefore I operated this patient on May 8, 1906. I found a small hernia-sac containing a small piece of omentum. Adhesive bands went up toward the stomach along the omentum and no doubt their drag-

ging on the stomach when the latter changed in position and size, caused the symptoms. No ulcer, cancer, or gallbladder trouble could be detected. The hernia was closed as usual. Since this operation, patient has had no more pains, no more vomiting, and has gained about twenty-five pounds, that is, regained his usual weight.

In conclusion let me recall: Many cases of obscure abdominal trouble, colics and vomiting can be caused by hernia and it is very important to look in all such cases for small ruptures that are often overlooked. The ruptures can be of any of the known varieties, but of special importance in producing gastric symptoms are the small epigastric herniae and the peritoneal lipomas.

Complete literature of the subject is given mainly by Kuttner.

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4. Cumston.
5. Witzel. Volkmann's Sammlung Klinischer Vorträge, 1890.
6. Aaron. Medical Record. No. 52, 1897.
7. Niehus. Berliner Klinische Wochenschrift, No. 80, 1895.
9. Gussenbauer. Prager Medicinische Wochenschrift, 1888.

To examine for the presence of tenderness over the mastoid bone the unaffected side will furnish a basis of comparison, pressure being made alternately over both mastoid processes with both hands.

The presence of hard fecal matter in the rectum in patients suffering with gonorrhea may sometimes give rise to urinary retention owing to the resulting irritation. It is therefore well to bear in mind this fact, since under these circumstances an enema emptying the lower bowel will often be sufficient to relieve the retention.—*Int. Jour. Surg.*

Though a glass catheter has the advantage of being easily sterilized, it readily chips or becomes cracked during sterilization, and then may break during its introduction. Hence it is better not used at all and replaced with a soft rubber instrument.

Urethral strictures situated beyond five inches from the meatus are not suitable for internal urethrotomy, which should generally be replaced by gradual dilatation with sounds. If this is not feasible, perineal section, in connection with internal urethrotomy, is generally the best procedure, —*Int. Jour. Surg.*

PREVENTIVE MEDICINE IN ITS RELATION TO PNEUMONIA.*

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Lansing.

In casting about for definite and interesting data to present to you on this subject, and in reviewing it, in my mind, from the standpoint of preventive medicine, two observations have been forced home to me: (1) how little we actually know about the manner in which pneumonia is contracted or conveyed; and (2) how urgent is a systematic, widespread and persistent effort to learn more concerning the nature of pneumonia, the conditions favorable to its contraction, its mode of spread, and its prevention. I believe that however we may differ with one another in our experience and conclusions regarding this disease, we all agree that *we do not know enough about it to cope successfully with it, as a menace to the health and lives of our citizens.* I might almost say there are more specific data and convincing proof of this than of any other statement I can make about this disease.

In reviewing this subject there are three aspects of pneumonia as a preventable disease which we shall consider, namely: (1) What facts are actually known and established; (2) the attitude of the State Board of Health; and (3) the relation of the medical profession to its prevention.

The early experiments of Koch, Friedlander, Sternberg, Frankel, Weichselbaum, and others, which in the early 80's showed the invariable presence of the micrococcus pneumoniae to an abnormal degree in the sputum coughed

up by a pneumonia patient, have ever since that time been substantiated by further study of the bacteriology of pneumonia; and the abnormal presence of these bacteria, wherever pneumonia occurs, is the foundation among the medical profession for its belief that pneumonia is a germ disease. This is established beyond cavil.

The second universally recognized fact is the great mortality from pneumonia. Among communicable diseases, pneumonia is among the leading causes of deaths in the United States, today, being second only to tuberculosis; and in Michigan being second to none. Whatever allowance we may make for inaccurate returns on death certificates, the high mortality rate of pneumonia is an impressive story whose significance we cannot deny.

The third well-attested fact which falls within the practical observation of every medical practitioner is that the highest mortality from pneumonia attends severe weather, the maximum mortality from the disease in Michigan being reached in February.

When we have said, therefore, that pneumonia is a germ disease with a conspicuously high death rate prevailing especially in cold climates, not necessarily extreme cold, but variable, we have named the three facts to which we can with one accord subscribe as established beyond question or doubt.

Although you may infer that anything else which may now be claimed about the communicability or preventability of

*Delivered before the Montcalm County Medical Society at Greenville, Mich., January 9th, 1908.

pneumonia is still in an experimental stage, yet there are observations and study which the Department of Health at Lansing is able to carry on, which I believe you will find interesting as bearing directly and usefully upon the practical control of this disease. I should like to consider them with you, endeavoring later to determine their true value and importance.

The Department of Health appreciates why there is such slow recognition of beneficial results from restrictive measures such as are cordially practiced for other contagious diseases, as diphtheria, scarlet fever, smallpox, etc. The germs of pneumonia are not sparks that you can see leap from their source and light upon new soil. You cannot follow their flight and prevent disaster. The majority of you, perhaps, will say to me: "I have never been able to trace one case of pneumonia to another; and I do not believe it to be conveyed from one person to another." Personally, I am free to say, that in my twenty-seven years' medical practice, I have not to my recollection been able to trace one case of pneumonia to another. But, notwithstanding this fact, here is my argument: This disease is caused by a germ found in the lungs. From the lower air passages a discharge laden with these germs is worked up by the motion of the cilia into the larynx and pharynx; and by coughing, nasal discharge, labored breathing, by speaking if you please, this discharge is eventually thrown off into the air. Is it not only reasonable but probable that the germs causing pneumonia in the lung of one person can in this manner be conveyed to the air and finally breathed into the lung of another person? Whether the second person contracts the disease or not depends entirely upon his or her physical condition. The contraction of pneumonia, unlike diphtheria, smallpox, typhoid fever, depends undoubtedly quite as much upon the physical condition of

the person as upon the presence of the virulent germ. This would explain to a large extent our common experience in seeing persons exposed to the disease (in the ordinary conception of the term) and remaining perfectly immune. Likewise, the susceptibility of a person to pneumonia being so governed by his physical condition or resisting power at the moment when the virulent germ finds lodgment in the lung, might explain how in a crowded theater, where vitiated air lowers one's vitality and resisting power, one might contract the disease, and be unable to trace its origin. These two facts you have undoubtedly observed in the majority of your cases of pneumonia: (1) you do not find persons known to be exposed to the disease through nursing or otherwise to contract it; and (2) you cannot trace a case of pneumonia to a known case. But it appeals to me that the fact that we cannot so trace a case of pneumonia, should not blind us to the possibility. The germ is in the lung. It came from somewhere. It is no more absurd to conceive that it came from the lung of another human being than it is to conceive that it simply sprang into existence. Guinea pigs have been inoculated with the pneumococcus, one from the other, until a whole series have died from pneumonia. Furthermore, there are physicians who have recorded a case of pneumonia traceable to a previous one, and no doubt there are conditions under which this might be observed as directly and as convincingly as one observes the contagion of smallpox. During 1904 and 1905 seventy-six cases had definite statements made concerning the source of contagium, and out of the seventy-six, sixty-four showed that pneumonia was contracted while nursing a case of pneumonia, or while otherwise in contact with with pneumonia patients.

Bearing on the communicability of pneumonia, there is an interesting paral-

lel to tuberculosis. The greater number of cases in each disease is preceded by the same predisposing influences, "bad cold" being the leader, "influenza" second, and "bronchitis" third. Both diseases attack the same classes of occupation showing partiality to housework, farmer, laborer, student, in the order named. Thus pneumonia, identified with tuberculosis in being seated in the lungs, caused by a germ, finding debilitating or depressing causes favorable to its contraction; keeping pace with the high mortality rate of tuberculosis, and responding remarkably to the application of modern out-door treatment—all these factors so similar to tuberculosis are certainly significant, and point unmistakably to the similar communicability of pneumonia. Against them, the mere testimony that you, or I, or any individual practitioner has not traced one case to another, seems to me to have little weight.

I strongly believe therefore, that it is not only wise and safe, but that it is beneficial and necessary to practice restrictive measures in cases of pneumonia. Just what restrictive measures, we can only say from our experience in parallel conditions.

The State Department of Health, as you doubtless already know, has made definite recommendations, and I feel confident that if they were faithfully observed, we would make a perceptible headway in getting control of this disease. Because pneumonia is likely to be spread through the discharges from the air passages, the precautionary measures center around that fact and the destruction of the sputum; as, for instance, the isolation of the patient, together with nurse; the prompt and complete disinfection of all discharges from mouth or nose, as well as disinfection of all clothing and articles likely to be soiled by such discharges, and the final disinfection of the room. Not only have I

an abiding faith that these will do for pneumonia what placarding, isolation and disinfection have done for diphtheria, and scarlet fever, but I believe it is our duty to enforce precautionary measures as widely and as speedily as it can be done; we are the keepers of the public welfare, and we owe them this much intelligent service.

Pneumonia has been on the list of reportable diseases since 1904, and the official reports to the State Department for the three years, 1904, 1905 and 1906 are compiled and the statistics available for study. I wish to put before you some of the results of these compilations, and I would ask you to what extent they are reliable, to what extent they are significant, and what some of your conclusions are.

The first conspicuous fact that confronts us is that for a large proportion of cases of pneumonia we have recorded only their personal description and date of their death. These facts we obtained from the vital statistics division of the Department of State where death certificates are kept on file:

In 1904, out of 3,790 cases of pneumonia, 1,273 were obtained from that source.

In 1905, out of 3,227 cases of pneumonia, 1,544 were obtained from that source.

In 1906, out of 3,400 cases of pneumonia, 2,418 were obtained from that source.

What does that signify? It means that for about one-half of the cases of pneumonia reported during those three years, we would not have had any record whatsoever, had there not been a rigid law compelling the registration of every death with the Secretary of State. It means that for fifty per cent of the cases of pneumonia which we know actually occurred, there was no coöperation by the attending physician with the local health officials, and with

the State Department for the restriction of the disease; and it means that if individual physicians exercised precautionary measures, they failed to give the State Department the benefit of the same for the purpose of the study of this disease from the point of view of preventive medicine. Our reports show only a small percentage of the cases to have had the recommended restrictive measures observed. They were carried out as follows:

Year.	Total	Isola-	Disinfection of	
	Cases.		Room	Sputum
1904	3,790	698	987	1,191
1905	3,237	703	1,047	1,030
1906	3,400	990	1,479	1,316

In addition, let me read to you some of the correspondence received in our department just during this last week, bearing on the delinquency of physicians:

1. Dear Sir: In accordance with your request asking me to make final report on the case of ***** I wrote to Dr. ***** to give me certain data, but up to the present time I failed to receive an answer. So, I hope you will take the matter up with him and make him understand the necessity of reporting such cases.

2. Dear Doctor: This case was not reported to me by the physician. I knew that this man died but did not know the cause of death until I got word from your Department. He was a single man and lived alone. I did the best I could to fumigate the house and bedding, and do not think there will be any danger of the disease spreading.

3. Dear Doctor: I called up the doctor, as the case was never reported to this office. He said he signed the certificate pneumonia to cover up the fact that he died of *syphilis*. The house was not fumigated and was never reported to me.

4. Dear Doctor: I have no record of the case, go for the doctor.

5. Dear Sir: Yours received. No case of pneumonia has been reported to me. I do not believe that there has been one.

6. Dear Sir: Doctor ***** did not notify me of this case. After the above was sent me I investigated and found that the family had moved out about a week after his death and the house has been vacant ever since and is locked up, and I do not know where the family has gone.

Hundreds of such statements are on file in our office, so that we are forced to believe that in too many instances physicians do not observe *any* precautions whatever with the patient's sputa; in too many instances they do not take all the precautions they should; and even where they are progressive and faithful in that matter, they fail to recognize the local health authorities, so that the physician's valuable experience expires with his individual interests.

In short, no person can say how many cases of pneumonia actually occur in Michigan. That they annually out-number the *reported* number by hundreds and hundreds, we are forced to believe. And all this, in spite of the fact that pneumonia is a germ disease, and kills more people in Michigan in a year than all the other communicable diseases put together, barring tuberculosis.

This fact is a shocking commentary on the fitness of the medical profession for the responsibilities they have undertaken. Gentlemen, when we received our diplomas to practice medicine, each and every one of us professed the spirit of its noble calling, to do the best we could for the cure and prevention of sickness and suffering. The physician is by the very nature of his work thrown in a position where he must guide people to good health; it is his especial opportunity to mould public opinion, by individual instruction from patient to patient, from family to family. As leaders in preventive as well as curative medicine you have the education of the people under your control. Preventive medicine is not a fad or a fancy, but a well recognized fact today, and why we should be so far behind some other na-

tions in recognizing this fact I cannot understand. The Chinese pay their doctors to keep them well. What you preach and what you practice the people will accept; but what the State Department of Health recommends and you fail to practice, the public will not accept or follow. Report your cases of pneumonia promptly to the local health officer of that jurisdiction where you are attending a case; give him full data regarding the sanitary precautions exercised during the sickness of the patient; let him know when the case is over, so he may comply with the law, disinfect the premises and make an intelligent and full report to the central department at Lansing. If *you* do not support by every act and word the requirements of the public health laws, both natural and statutory, if *you* do not in your daily practice take pains to establish among your patients an accurate knowledge concerning this disease, how do you think that *they* will support and observe the precautions necessary to restrict and prevent pneumonia?

Give not only your *personal and individual* co-operation for the prevention of this disease, but also your *combined* support. Let the community understand that as a body of physicians, as an organization, you actively support the work, intent and ideals of the public health administrators of your proper community.

For the carrying out of preventive measures not only during sickness from pneumonia, but to prevent its contraction; for the practice of hygiene of the mouth, nose and throat to keep them clean and free from local debilitating accumulations of mucous secretions; for the prompt and effectual treatment of bad colds; for advice against exposure, influenza, bronchitis; for the observation of precautionary measures during sickness with especial emphasis on the disinfection of the sputum; for advice in all these matters, and for the education of the public and eventual control of pneumonia, we look to the physician, and the county medical society.

An Analysis of 832 Cases of Scarlet Fever, With Observations of the Diagnosis and Treatment of the Disease.—BARLOW studied the above cases during a recent epidemic extending over a period of eighteen months.

He says the diagnosis of scarlet fever is not always the simple affair which many appear to think it is. The mistake most often made was too much attention paid to the presence of a rash, and the character of the rash. Scarlet fever is a disease with three main characteristics—a definite rash, a definite sore throat, and a definite condition of the tongue; but it must be remembered that every sore throat is not scarlet fever, every strawberry tongue is not scarlet fever, and above all, every erythematous rash is not scarlet fever, nor indeed is every scarlet fever rash erythematous; these three signs must be considered in relation to and in conjunction with one another. Very often the rash simulates measles, but the distribution and accompanying symptoms are dif-

ferent. Again the condition of the tongue and the rash bear a definite relationship to one another; the tongue is furred while the rash is out, the tongue is strawberry when the rash has faded. One does not expect to find a brilliant rash with a strawberry tongue; indeed in the vast majority of cases one can tell from the state of the tongue the day of disease. Some doctors, if they do not see the rash, will not diagnose scarlet fever, although the throat and tongue are typical. The rash only lasts a few hours in some cases; on the other hand, scarlet fever is often erroneously diagnosed when an erythematous rash alone is present, and there is no sore throat or tongue.—*Practitioner*, Dec. '07, pg. 837.

In cases of suspected iodoform poisoning a ready test for the presence of iodine in the saliva consists in adding a little calomel to it, when a yellowish precipitate of mercuric iodide will result.

DISEASES OF JOINTS.*

H. E. RANDALL, M. D.,
Lapeer.

The bones of the body develop from certain bone centers. A study of the development of bone by the Roentgen Rays has made many changes in the conception of the process. These bone centers coalescing with other centers form certain bones which have been given definite names—and whose ridges and processes and grooves are the bug-a-boo of the medical student. These separate bones are connected to other bones in certain definite ways. In the skull the bones dove-tail to each other by their serrated edges. In other parts of the body the bones meet each other by articulations which admit of a variety of movements from sliding and hinge to that of a ball-and-socket joint. The bones at the articulations are held in their proper places by strong ligaments and the action of muscles. The joint is lubricated by a synovial fluid, secreted by the synovial membrane, a structure that partially covers the joints. The peculiarity of attachment of the synovial sac accounts for many of the physical or clinical phases we see when the joint or the contiguous structure becomes diseased. We will use as an illustration the knee, because it is the most frequently affected joint in the body. It will be noted by observing a section of the leg through the knee joint, that the attachment of the synovial sac is below the epiphyseal line. It is thus possible that a disease originating in the epiphyseal line may perforate or may be reached surgically without entering the knee joint.

For the purpose of this paper I have

*Read before the Seventh District Society, October 24, 1907.

divided diseases of joints into six divisions:

1. Joint disease, simple synovitis, without germ infection.
2. Acute synovitis due to germ infection.
3. Chronic disease due to germ infection. Tuberculosis and syphilis and other diseases.
4. Joint disease due to so-called disorder of metabolism.
5. Joint disease due to nervous disorders.
6. Disease due to mechanical derangement.

Under our first heading of joint disease we find cases due to injury to the joint, a blow, dislocations, sub-luxations and fractures extending into the joint. In these cases there will be an accumulation of clear yellowish synovial fluid. There is no redness of surrounding parts, there is no heat of the local parts and there is no general fever. The fluid in the joint is clear and does not contain pus. We find the patella floating and by pressing upon it we get the familiar click. We find fluctuation in the joint. A peculiar feature in a well-filled knee-joint is the filling of the upper recess of the synovial sac. A valuable point might here be given. There will occasionally be seen a case complaining of swelling and tenderness around the joint in which the trouble has nothing to do with the joint itself. In these cases there is absence of a

floating patella and the position of the leg is different from joint trouble. The knee is straight or extended, while with effusion into the joint the knee is flexed. It is necessary to recognize this case, because if you do not, you may infect the joint and the patient lose his leg and perhaps his life. In effusion of the joint, unless pus be present, as a rule it is best not to aspirate, for fear, even under the most careful asepsis, of infecting the joint.

Under the second heading—Acute Synovitis, due to germ infection, we have those cases due to gonococci, the common pus germs, and those of the epidemic fevers. Those due to influenza have a tendency to a plastic or obliterating type. Pneumococci are usually suppurative. Typhoid arthritis is more severe in the mono-articular than in multi-articular infection.

In gonorrhreal cases the symptoms depend upon the condition of the urethra. If the gonorrhea is acute, the joint trouble has an acute course. In chronic urethritis the type is that of more subacute joint trouble. The condition of the joint varies from a turbid serous exudative to a purulent formation. As a rule, the infection is purely gonococcal, but other specific germs may be demonstrated. These cases should be treated by rest and fixation and anodyne application. Should pus form, the joint should be opened and drained. The urethritis should be treated according to the condition of the urethra, avoiding excessive or heroic measures. As once said, it does not pay to sand-paper the urethra. The disease does not respond to the salicylates, although they are usually given.

In cases of septic joint we need not take up theoretical consideration, but the joint must be opened, in a manner which I intend to speak of later. In regard to septic conditions a point should be mentioned at this time. An osteo-

myelitis always starts in the marrow of the bone and any extreme pain in the bones, with or without swelling, should always suggest the possibility of osteomyelitis. This requires the same treatment as any acute suppuration, namely, evacuation. Do not use the curet, but give a good, free opening.

Chronic Cases. Tubercular Joints.

In regard to this disease some points in pathology must be borne in mind. Tuberculosis does not begin in the joints, but always in the epiphysis of one of the bones forming the joint. Experimental work has shown that the miliary type may be inoculated into animals, causing death by general miliary tuberculosis. In joint disease in animals traumatism must be produced and the animal inoculated with the tubercle, and this is supported clinically by the fact that a joint lesion is rarely the primary focus in the body. In operating on tuberculosis cases it is very difficult to recognize the limit of the process. But the natural tendency to cure, with the removal of a good share of tuberculous tissue, is about the only good thing one can say of the disease. With iodoform injection into the joint I have had no experience. Bier's congestive treatment is giving very satisfactory results where it has been used.

Nervous Cases. Charcot's Joint.

This peculiar condition may affect knee, elbow, or hip. In quite an experience with great opportunity for observation, I have seen but one case of Charcot's joint. The case was thought by several physicians to be tuberculosis, but there was absence of pain and the patient delighted in showing the various movements which the joint had. I must confess it jarred by nerves not a little. In this particular disease there is no

pain, or very little pain, and the relaxation of the ligaments allows the joint to be moved in almost any direction, hyperextension and lateral motion. The swelling of the earlier stages disappears after months or even years. This patient, by strapping two sticks to his leg, is able to get some use of it.

The next division of joint diseases includes those due to disorders of metabolism. On this subject there is a division of opinion as to the classification.

Chronic articular rheumatism, rheumatoid arthritis, arthritis deformans, etc., are the names given to the various conditions. Hoffa of Berlin in a recent address before the Anglo-American Association of Berlin, has made a division between arthritis deformans and what he calls polyarthritis chronica progressiva in which the distinction is made that the latter, commencing in the small joints, rapidly involves the larger ones, with deformity of various kinds. Arthritis deformans shows a characteristic X-ray picture. In the beginning of the disease at the knee joint on the upper and lower end of patella are seen spur-shaped formations. The joint cleft is normal. This fact distinguishes it from polyarthritis chronica progressiva, in which a considerable atrophy of bones takes place daily. There is never the breaking down of the joint, such as occurs in chronic progressive arthritis, in which an obliteration of the joint cavity is the rule. Arthritis deformans never produces real ankylosis. In its early stages it is very hard to distinguish from acute or subacute infective arthritis. The only safe course is to remember that an acute rheumatic joint may result in a progressive joint disease. In this terrible disease the treatment by elimination, rest, exercise, heat and massage, you are familiar with, but a few cases treated by Bier's method have given good success. Chronic pro-

gressive arthritis begins in the synovial sac in contra-distinction to arthritis deformans, which begins in the bone, and the disease leads to tissue thickening and a growing together of the opposite sides of the joint. Treatment of this condition is as far as I know unsuccessful.

Injuries of joints due to a mechanical derangement are dislocations—subluxation, loose cartilage in the joint, and, we might add, fracture extending into the joint, and loose bodies of various kinds. For fear I am making this paper too long, and I have tried to touch only the important points, let me look over in a general way the treatment of the various conditions.

Acute and painful conditions of the joints require rest, heat and applications of anodyne. Sprains, and it is well known that most sprains mean small fracture at or near a joint, require strapping or bandaging of the injured portion, modified to meet existing conditions.

Operative Methods.

The joint must be opened when pus is present. In tuberculous cases the trend of surgery is not to open the joints for fear of a pyogenic infection on top of a tubercular one, with the difficulty mentioned above of not knowing when you have removed all of the tubercular foci. Dr. Phelps, of New York, now dead, brought into prominence the treatment of wiping out the joint dry and using carbolic acid followed by alcohol.

In mechanical conditions it may be necessary to open the joint and correct the condition, such as removal of loose bone and in cases of frequent dislocation it has been suggested that the capsule of the joint be reefed or the slack taken up by operative means.

In children after mechanical treatment

has proved unsatisfactory in tuberculous conditions, the synovial membrane may be removed with the idea of saving the epiphyseal line and producing ankylosis. I think with our advanced knowledge of joint disease that arthrectomy will be done less often in the future as not meeting the requirement of a scientific operation. The same is true of resection of joints, due to the tendency to conservatism and the success of the mechanical and operative treatment. Amputation may be required in desperate cases. In the cases of fibrous adhesions where manual movement is used, the object is to produce motion, but not so violent as to produce a fresh inflammatory reaction, which would make conditions worse than they were before. Good judgment is required to decide in these cases. In several cases by giving chloroform and using this method I have been able to give the patient a good arm or leg. Bear in mind that in fibrous adhesions in the knee that the posterior ligament and posterior cervical lateral ligaments are bound together with the fatty tissue at the back of the knee. Forceful extension may result in a serious damage to the tissues of the popliteal space.

Osseous union and fibrous bands may make so immovable a joint that it may be necessary to sever the connection and resort to Murphy's method for producing a movable joint. The bones having been formed so as to give as good a plane of articulation as possible and the removal of any body that would limit movement, a flap of aponeurosis covered with fat is turned in between the bones and stitched, followed by movements in the next week.

The dislocation of the semilunar cartilages of the knee joint occurs when the tibia is rotated outward on the femur with the knee slightly flexed. The treat-

ment of one of these knees, which lock so that the knee cannot be moved, is effected by reversing the process of dislocation. The knee is to be flexed rotating the tibia and pressing back the cartilage. The tendency to displacement may be prevented by using a sole higher on inner side of shoe, so that the weight is carried more on outer side of foot. A splint which prevents full extension, as well as lateral and rotary motion of knee will prevent this accident. Where the condition is troublesome the joint is opened and loose cartilage removed.

That there exist cases of hysterical joint I do not question. But it is not always a safe diagnosis to make. A case recently was seen by a doctor in this state. He made a careful examination and made an X-ray picture. The doctor recommended operation. She was then seen by several prominent men in the East, who made a diagnosis of hysterical joint. The pain continuing, another surgeon had a Roentgen picture made, and the first diagnosis was confirmed. The case was operated on, a cyst removed from the tibia and a perfect recovery ensued. It pays to be very careful in making a diagnosis of hysterical joints.

In treating tubercular conditions of the knee, fixation is the first essential. A treatment which has given great success is Bier's congestive treatment. This is applied by using an elastic bandage above the knee to produce a venous hyperemia, applied not over two hours a day. In order to produce only venous hyperemia the pulse must not be obliterated below the knee, and the treatment should be applied gradually, not over 10 or 15 minutes at the beginning of treatment. With injection of iodoform suspended in glycerine I have had no experience, but many report good results. As I said above, the natural tendency of the disease is toward cure.

THE CONSERVATIVE TREATMENT OF INFLAMMATORY PELVIC CONDITIONS.*

ROLLAND PARMETER, M. D.

Detroit.

Some one has made the statement that 56% of the cases presenting themselves to the gynecologist are of inflammatory conditions of the uterus and its appendages. Another author has placed it as high as 65 per cent. In smaller cities and in the country, naturally this percentage is not so high. In Detroit, at least, this form of disease is so plentiful that it can in truth be said to constitute the "daily bread" of the gynecologist. This, then, is excuse enough for the discussion of the various methods of treatment which should serve all who are engaged in this line of work.

Acute adnexal inflammation is usually the result of gonorrhreal infection or septic abortion and in most cases should be a "Noli me tangere" for the practitioner. Absolute rest in bed for weeks is the treatment for cases of this kind, and it is the only treatment from which we may expect favorable results.

If we carry out this form of treatment together with the proper exhibition of narcotics and the use of external heat or cold, properly employed, according to indications, or until we can by bimanual examination determine the pathological conditions, we will be surprised at the completeness of cure in most of our cases.

There is no rule without an exception. There are cases of acute pyosalpinx in which, in spite of absolute quiet, the tubes increase so rapidly that operative

interference is absolutely necessary. I recall such a case, where at first the tube was scarcely larger than normal and inside of ten days, it had grown to enormous proportions, reaching almost to the umbilicus. In such cases the operation of choice is vaginal incision, and drainage through the posterior cul-de-sac.

The portio having been seized with tenaculæ and pulled well down, the pouch of Douglas is opened with a Paquelin cautery. Now, under the guidance of the finger, a pair of bent forceps or scissors is made to invade all parts of the abscesses and drained with a rubber tube well wrapped in iodoform gauze. Usually inside of fourteen days the cavity will be found closed.

I believe vaginal incision in these cases to be the correct one, and if properly executed carries with it very little danger. It is very seldom necessary in acute cases to interfere at all and I believe the interest of our patients will be best conserved by a let-alone policy.

There is probably not much difference in opinion among us upon the method of treatment of acute cases, but when we come to those of a chronic nature, no doubt there will be as many different points of view as there are gynecologists.

The clinical picture of chronic conditions varies greatly. Often upon bimanual examination we can scarcely distinguish any anatomical changes and again we may find a slight enlargement of the tube, together with adhesions to

*Read at the Saginaw meeting of the Michigan State Medical Society, May 15-16, 1907, and approved for publication by the Publication Committee.

its abdominal end which will test our ability to differentiate from an enlarged inflammatory ovary or a small new growth of the ovary. Nor can we always determine from the symptoms the severity of the process. There are patients with minor anatomical or pathological lesions who complain of the severest pains, while others with extensive changes have scarcely any pain at all.

I think I agree with most gynecologists when I state that "patients shall only be operated upon after conservative treatment has been faithfully and conscientiously carried out and the desired result has not been obtained."

With an increase of experience one will be the better able to say in what particular case we may expect good results. The age of the patient helps to influence us in our decision. Generally speaking, the younger the patient the more hesitancy will we have in interfering operatively. Those lacking in experience will better serve their patients by proceeding in all cases at first along conservative lines.

The word "treatment" as here used needs some amplification, for the less one "treats" such cases, in general, the better. The sovereign remedy here is absolute rest. This means, of course, in bed; the longer the better. If we have the patience to wait a month, or even months, we will be rewarded in many cases by seeing patients cured when at first the prognosis looked hopeless.

The enforcement of absolute rest in bed, in an institution surrounded by attendants, patients, and physicians who are accustomed to the all too prevalent custom of "doing something" and the lack of equipment and space necessary for the proper execution of certain lines of conservative treatment, is not an easy task, and I may say practically impossible, outside a privately conducted or state institution,

We may cut short the period of absolute rest to a great extent by the proper use of some of the means at our command. Hydrotherapy, although harmless, I believe does but little good. Massage, unless carried out with the utmost precaution and by one trained in such work, may do more harm than good. The use of pressure from within the vagina and from the abdominal surface, according to Pincus, I believe to be of great service, and it will greatly aid in shortening the period of absolute rest. But the greatest aid we have will be found in the proper use of superheated air. It is a surprise that its use has not been more popular in America. It is practically an American invention. Here again we have the humiliation of seeing this method brought back to us from across the water, after having been perfected and the proper limitations placed upon it. For a period of about three years, the Second Royal University Clinic at Munich has made use of hot air in the treatment of inflammatory pelvic conditions, and with an American apparatus. I must admit my astonishment at the results obtained.

Superheated air finds its greatest use in cases of old exudate, peri- and parametritis, yet will serve a good purpose in many cases of adnexal changes. I remember a patient with a very extensive parametritis, following septic parturition, who received no other form of treatment, and yet in the period of three weeks she made a complete recovery and left the clinic subjectively and objectively cured. I am not in a position to give definite percentages of cured cases, but I think I am safe in putting it as high as 80 or 90.

Some of these cases are only subjectively cured and may later come into the hands of gynecologists who relieve them permanently by means of an operation. Still, all patients cannot be cured by such conservative treatment. There

will always remain a certain number of patients who will require operation, yet even here conservatism has its place.

When the abdominal was the route of choice, the results were very decidedly inferior to those now obtained by the vaginal. My short experience leads me to concur in the choice of the vaginal whenever possible. The percentage of mortality with most operators is less by the vaginal than by the abdominal, but it is still too high, for we are dealing here with a condition which does not threaten the life of the patient. Henkel of Olshausen's clinic had a mortality of 4.2 per cent in 142 vaginal celiotomies and 10.3 per cent, in his abdominal cases. The technique is the simpler and the abdominal more easily learned. The vaginal procedure requires years of practice, beginning with the easier cases, and a wide experience to enable one to choose cases suitable for its employment. The slovenly operator can never do successful work through the vagina, particularly when the appendages have to be cared for.

I like Henkel's three methods of procedure: 1—The vaginal incision; 2—extirpation of adnexa alone; 3—extirpation of uterus and adnexa or the uterus alone. The first procedure is carried out only upon youthful patients or upon those in whom we wish to retain the menstruating function and who may be suffering unilateral or bilateral disease. This procedure gives the best results in pure tubal conditions or those in whom the ovaries are not involved such as pyo- and hydrosalpinx.

If we have determined that the ovary also is involved, then this procedure, incision and drainage, does not give good results. We can easily see why this should be true, for when an ovary is infected, because of its anatomical structure, the infection is from many foci. It is practically impossible to open and drain all these small abscesses. Foci not

so opened are likely to become active at any time. In all of the selected cases under my observation good results were obtained. Nor have I seen other accidents than in one case in the Munich clinic where there was an accidental wounding of a uterine artery. This was very readily controlled. A good procedure is to open the cul-de-sac with a Paquelin, then with a finger in this opening determine the size and location of the pelvic lesions and with it as a guide puncture and drain, making use of a pair of curved Pean forceps or blunt curved scissors.

The second procedure, the extirpation of the adnexa alone, without the uterus, is made use of in tuboovarian conditions, the old chronic cases in which energetic conservative treatment has been tried without result. Here, instead of confining our operation to an opening in the posterior cul-de-sac, we make use of an anterior incision as well. This incision gives us a better view of the field. In many cases it may be necessary to do a posterior colpotomy first. Through this incision the adhesions should be broken up, then having made an anterior incision the bladder is shoved well up out of the way and the peritoneum opened. Many times we can easily deliver the uterus through this latter opening and with traction upon it as far as possible, the tubes and ovaries are brought into view. With the parts now exposed to view we can carry out any desired procedure upon the adnexa. If the adnexal tumors are too extensive, a puncture will quickly reduce the size, so we may proceed. If we pull by means of forceps, we are apt to tear the organs and our field of view will be quickly obstructed with blood. Any desired conservative procedure may be thus carried out, such as resection of part of an ovary, of both the tube and ovary, or even the uterus if we so desire. In many cases we will have but one tube

and an ovary to deal with. The work having been completed we replace the uterus, doing a fixation if necessary, suture the anterior wound and pack the posterior cul-de-sac with iodoform gauze, if pus or adhesions have been encountered.

It is a mistake to say one is operating too much in the dark, for in truth the only part carried out without the aid of sight is the freeing of adhesions in the posterior cul-de-sac with the finger. The ligamentum infundibulo-pelvicum can always be brought into view by proper traction and retraction. A Suchardt incision may be necessary in un-

usually small vaginas.

Accidental injuries here to be feared are those of rectum and intestine, the ureters and bladder are scarcely ever in our way.

The third procedure, that of radical removal of tubes and uterus, together with parts of, or all the ovarian tissue, as may be necessary, is carried out in practically a similar manner. We may occasionally have to leave a clamp because of inaccessible bleeding points.

I believe in general, the vaginal route to be much the better one for inflammatory cases not amenable to conservative treatment.

SURGICAL OPERATIONS ON THE HEAD.*

L. S. GRISWOLD, M. D.,
Big Rapids.

Surgical operations of the head are, for the purpose of description, divided into Extra-cranial and Intra-cranial. They are also divided into operations for Traumatisms and those for Disease. Extra-cranial operations for either traumatic or idiopathic lesions are usually so simple as to require but slight mention in this paper. The preparations for such procedures are of more importance than the operation itself. It is presumed that the most timid physician who carries a scalpel and needle in his armament, can dress and care for an incised, lacerated or contused wound of the head, as well as the most skilled surgeon, so long as he keeps the eternal truths of asepsis and antisepsis in mind and applies the proper technique to this end.

Idiopathic lesions of the scalp, such as cysts, congenital, acquired, and seaceous, horns or dense epithelial growths, lipomata, papillomata, nevi, etc., are also of slight surgical importance, and have the right to a mention in this paper only by way of clearing the path for a description of the bolder procedures. Any doctor can take his scissors and trim away a papilloma, or with his scalpel button-hole the skin over a wen or cyst, and pry out the sac or even remove an epithelial horn by a V-incision, without fear of a troublesome hemorrhage, shock, or collapse. But the person who does these minor operations must scrub and shave the field, and wash with bi-chloride solution and alcohol or ether, or he must suffer the humiliation of having frequent troublesome and even dangerous complications follow. Any wound of the scalp, be it

*Read before the Osceola-Lake Medical Society, December 30, 1907.

ever so small, whether made by the surgeon's knife or by an accidental injury, may be the source of danger, unless made or dressed by a person with a keen sense of perfect cleanliness and antisepsis. With these principles firmly fixed in his mind and an intelligent idea of the technique for securing this object, he is well fitted to perform these minor operations, even though his armament may be very simple indeed.

Not so with the second division of the subject, intra-cranial operations. Here is a cavity which until recent years has been exempt from surgical invasion, except for injuries which caused fracture of the bony wall and pressure of the tissues within by the fragments, but for the last two and a half decades, this cavity has been invaded with nearly the same precision and boldness as the other cavities of the body. Large areas of bony wall have been cut away to expose tumors and to allow their extirpation. Abscesses have been searched for and have been found and relieved after multiple trephining. Foreign bodies have been fished out of the cerebral tissue at a far distant part from the point of entrance, and by these bold procedures occasionally a life has been saved which by the old conservative, "let alone" methods of treatment, would have been lost.

Among the traumatisms of the head affecting the intra-cranial tissue, which most frequently come to the civil surgeon, and hence interest him most, are injuries which crush the walls and compress the brain, and punctured and gunshot wounds, each of which requires almost invariably active interference by the surgeon. If the wall has been broken and the fragments are impinging on the brain substance, it is the unmistakable duty of the surgeon to trephine and pry out that bone. If this is done early, before destructive disease of the soft tissues has commenced, the most gratify-

ing results will frequently follow.

In the treatment of punctured wounds, caused by gun shot or otherwise, the Alpha and Omega of treatment is not antisepsis, but drainage as well: hence the old "let alone" idea of treatment has given way to active interference. It matters not whether the missile producing the puncture has lodged within the cranium or not, the trephine must be used to enlarge the opening: if small, to secure drainage, and if the missile is lodged within, the larger opening is doubly necessary, through which to explore for the foreign body, and if found near the wound of entrance, to extract it: but if found at too great a distance to be extracted at the point of entrance, then a counter opening should be made with the trephine through which to remove the body and also to act as a counter opening for draining the long septic track.

Punctures by nails, when the wound extends into the brain tissue, even though producing slight symptoms at first, are not safe to leave to drain through their own channel, since there is such a reasonable presumption that small spiculae of bone are carried into the meninges. Pus is almost sure to form from some cause and be illly drained through the small opening in the wall. It is much safer, therefore, to trephine in advance of the formation of pus and thus secure its free exit, should any form. Besides, by this treatment, spiculae of bone may be cleaned out, and the canal in some measure be antisepsised.

Surgical operations for idiopathic intra-cranial lesions are many, but the most common lesion to be encountered by the general practitioner is Suppurative Otitis Media, which I am sorry to believe calls for surgical treatment more frequently than it gets it. I have not infrequently been called in consultation in cases of this kind of inflammation,

from which the patient had been allowed to suffer untold agony for weeks, and where kind nature had been struggling to cure by necrosing through the mastoid process. In one case it had actually formed an opening through the bone and was freely discharging its pus. This is not only dangerous conservatism, but it imposes indescribable suffering upon the unfortunate victim.

In all such cases where pain in the ear is continuous, accompanied by chills and high fever, the drum of the ear should be examined through a speculum, and if found bulging externally and more opaque than usual, this membrane should be punctured. If a free discharge of pus or serum follows, the relief may be complete, but if involvement of the mastoid cells has already taken place, no time should be lost in opening down through the outer plate of the mastoid process and curetting out the diseased cells. This may be done by the most conservative surgeon without fear. After preparing the skin in the usual manner for all operations, a vertical incision is made over the prominence of the process, the centre of the cut corresponding to the centre of the auditory meatus, then a short, transverse incision backward from the middle of the perpendicular one. The integument can then be reflected out of the way. The periosteum should then be scratched away where the bone is to be perforated: then a gouge or trephine will quickly remove the thin shell covering the cells, after which a small bone curet can be advantageously used to remove the diseased cell tissue. This will furnish safe and absolute relief unless the case has reached the stage of brain infection.

Abscess of the brain is not an infrequent sequel of suppurative disease of the middle ear, or of purulent accumulations about the orbits or frontal sinuses. Those produced by sepsis from

the middle ear cause the larger per cent, generally believed to be about ninety per cent. They may be either cerebral or cerebellar, in the proportion of about four of the former to one of the latter.

The symptoms, in addition to those of general suppurative disease are varied according to their location in the brain. In general, it may be safely presumed that if paralysis or spasm of certain groups of muscles is present, or if coma or semi-coma makes its appearance, following the suppurative disease above named, brain abscess is formed and death is sure to soon follow, unless prompt relief is furnished.

It must be remembered, however, that an abscess in this region may be either acute or chronic, like those of other parts of the body, and often develops so insidiously as to obscure and delay the diagnosis.

Abscesses of the brain arising as a result of sepsis from purulent disease of the orbits, frontal sinuses, or nasal cavities are usually located in the cerebrum. The symptoms which should arouse the suspicions of the medical attendant as to the character of the true condition of his patient are paralysis or spasms of certain groups of muscles, disturbances of the power of speech, etc.

The commencing paralysis may, when first observed, be simply a pronounced anesthesia of an extremity. In two cases coming under my observation as a consultant, this appeared in the right hand, and within twenty-four hours had deepened into complete paralysis of both sensation and motion of the member. Paralysis or spasm of a single group of muscles indicates disease in their motor area, and paralysis following spasm in any one group of muscles is a characteristic symptom of disease in the central region. The problem then is to approximately locate the pus cavity from these distant symptoms.

It seems to have been abundantly

demonstrated that the convolutions around the fissures of Rolando and Sylvius are the centres governing the disturbances of motion, those around Rolando governing the extremities, and those of Sylvius governing speech. It becomes necessary, therefore, from a surgical standpoint, to be able to approximately locate the fissure of Rolando. Championiere gives the following lines for its location, which are perhaps as simple as any devised and accurate enough for all practical purposes. Draw a horizontal line directly back from the posterior border of malar process of temporal bone, 2 4-5 inches, A and B. From B draw a perpendicular line upward, 1 1-5 inches to C, then from C upward and backward to D, which shall terminate in the sagittal suture, 2½ inches behind the junction

of the coronal and sagittal sutures. This line from C to D will locate very closely the fissure.

The same writer says that where hemiplegia exists as the result of septic abscess, the trephine should be applied in the middle of the line on the side opposite the paralysis. If the loss of motion or convulsion is confined to the lower extremities alone, the trephine should be applied in the upper third of the line. Where the motor disturbances are in the upper extremities alone, the operation should be made opposite the middle and in front of the line. When the disturbances are of the power of speech, the operation should be made at the lower third and well in front of the line. The dressings and treatment of all are the same as before described.

THE ORGANIZATION OF A STATE ANTI-TUBERCULOSIS ASSOCIATION.

ALDRED SCOTT WARTHIN, M. D.
Ann Arbor.

Modern Medicine accepts the general proposition that tuberculosis is an infectious disease, preventable, and in its early stages curable. To such a revelation society at large can have but one answer: the pushing of an organized crusade against the disease and its ultimate extermination. The civilized nations have already undertaken this campaign. International Congresses have been held, International and National Societies organized, while state, city and local anti-tuberculosis associations are coming into existence rapidly, one after another, to swell the ranks of the forces opposed to mankind's most active enemy—the tubercle-bacillus.

In the State of Michigan no State organization has as yet been effected. In a number of the cities and towns anti-tuberculosis societies or committees have already been formed, and a number of the County Medical Societies have appointed committees of this kind, but up to the present time very little effective work has been accomplished by them. There are several notable exceptions to this, but as far as I have been able to learn the majority have done but little more than organize, and some of those started with enthusiasm have apparently died soon after birth. There is also an Anti-Tuberculosis Committee in the State Medical Association, but its

field of action has, likewise, been a limited one.

These remarks are not in any way intended as criticism of any of these local societies or committees, but only to show that we have not yet made, here in Michigan, the progress in the anti-tuberculosis campaign that has been accomplished by a number of our sister-states. And this failure of progress in this direction is, I think, due wholly to our failure of organization and the conducting of a broad and energetic campaign. The experience of some other states during the last few years has shown definitely that if any results are to be obtained in this fight, organization is necessary before any definite program can be carried into action. There should be no unnecessary expenditure of energy or resource, and any given field of operation should be effectively covered.

The local conditions in different states of the Union vary so greatly that it is not possible to fit any one rule or scheme of organization to all of them. Within certain limits each state or city must, therefore, work out its own plan of campaign. One general rule can, however, be laid down for all. This campaign is not for the medical profession alone, nor is it for laymen alone. Only in the proper co-operation of these two forces can a dignified and effective crusade be carried out. As put by Livingston Farrand, a "campaign planned and conducted by physicians alone remains dignified and ethical and entirely inefficient." This explains no doubt the inactivity of some of the medical society anti-tuberculosis committees. On the other hand a crusade initiated and planned by non-medical laymen lacks authority and conviction and almost inevitably takes up some "half-baked" idea ending in ethical confusion. I repeat again that a proper and effective campaign can be accomplished only by active co-operation of professional and lay-

men. And of the second class all branches of society should be represented. In our preliminary letter we asked that the local organizing committees be composed of a physician, leading minister or teacher, lawyer, president of the local women's club and a leading business man. In the completely developed societies it is desirable to push the division of interest as far as possible and to reach all classes of society.

It is true that the ultimate responsibility for the control of epidemics, as well as for the prevention and cure of disease in general, will always, and rightly, be thrust upon the medical profession. Members of the medical profession will, therefore, always be looked to as the proper leaders in this warfare, and such a responsibility we must accept. Only those members, who, false to the lofty ideals of the profession cannot see beyond the narrow mercenary aspect of the relations between themselves and their individual patients, will refuse to recognize their higher obligations to society.

The campaign before us is, at the beginning, chiefly an educational one. Elementary knowledge must be diffused; public opinion must be first interested, then aroused and finally educated into that enlightened state which will lead it to act wisely and not foolishly. It may not be amiss to say here that a similar educational need exists in the rank and file of the medical profession as to the necessity of early diagnosis, methods of treatment, adoption of preventive measures, etc. New laws are needed, and new institutions, and for the latter the necessary appropriations, new methods, more research, more teachers, and sometimes new officials. "Education of the public" is a very vague thing unless it can be made definite and tangible by a direct appeal to small social groups. The co-operation of the legal profession, of teachers, journalists, preachers, and

of humanitarians from all classes of society is absolutely necessary to the successful waging of this complex campaign. I think I have said enough to justify my view, that, although the initiative in the anti-tuberculosis fight should come from the physicians, through the State or County Medical Societies, State Board of Health or other professional organization, if it is to be at all effective, the campaign must be a co-operative one.

The plan which we hope to see carried out in Michigan consists essentially in the establishment in every town and city of the state of a local sub-association, the members of which are to be also members of the broader State organization. Local conditions can thus be met, and there will thus be developed all through the state local educational centres of greater effectiveness than could be secured by a State association built up simply of individual members scattered about irregularly. At the same time the State Association will have to deal with the broader questions and policies of the movement in so far as the state is concerned; and moreover it must remain an agent for furthering and aiding the local educational campaigns to be carried out by the local sub-associations. Such functions of a State Association may be briefly mentioned here.

1. Literature. Each State Association should authorize the preparation and distribution of leaflets or pamphlets especially adapted to the conditions within that state, and printed in the various languages spoken therein. These should be varied in content to suit the different classes reached by them. They should contain in concise, popular phraseology elementary knowledge of infection in general and tuberculosis in special, the general principles of hygiene, directions for consumptives and for those living with them, disinfection, etc. State

Association prizes may be offered to stimulate the production of leaflets best suited to the local needs.

The State Association may also undertake to place within the local libraries well-chosen books on tuberculosis and infection, or, at least, to suggest the purchase of such books, and to furnish approved lists of such.

2. Lectures. The State Associations should endeavor to control a corps of lecturers who are willing on payment of expenses or a small fee in excess thereof to attend meetings of the local sub-associations and give suitable lectures upon the subject illustrated either by lantern slides or by photographs. Such associations further should maintain a bureau by which suitable sets of lantern slides or mounted photographs could be loaned out for small fees sufficient to cover transportation and damage. The lectures should be given preferably by medical men because of the authority with which they can speak upon subjects pertaining to disease. In the large cities the local professional members of the association could take turns in giving such lectures. Summer open-air lectures of this kind have met with great success in some of the large eastern cities.

3. Publicity. A committee on publicity should be formed and its members pledged to successive activity in sending to certain newspapers short articles on tuberculosis and its prevention. Street car signs, placards, programs, tickets, etc., may be utilized in spreading the propaganda.

4. Exhibit. A peripatetic exhibit should be owned by the State Association and sent from one town to another under the care of the local sub-associations. This exhibit should be in part general and concerned with the nature of tuberculosis and the conditions favoring its development, its prevention,

treatment, etc. Pathological specimens, photographs, colored plates, charts, models, etc., will make up the chief part of such an exhibit. The state statistics and local conditions should be made a prominent feature and special emphasis should be laid upon the work already carried out in the state toward the betterment of conditions. State sanatoria should be fully represented by models and photographs. The co-operation of the State Board of Health in the preparation of such an exhibit should be sought; but its care and transportation will probably have to be left to the local committees. Such exhibits should always be free, in the most accessible part of the town, and, when possible, combined with "lantern talks."

5. Legislation. The State Association should serve as a center of agitation for the passage and enforcement of proper laws concerning registration, disinfection, anti-spitting, etc. Movements for the establishment of state sanatoria, tuberculosis wards in asylums, prisons, etc., free tuberculosis dispensaries, proper care of tuberculosis in alms-houses, etc., may all be initiated and prosecuted by the State Association. Active co-operation should be taken with the public health authorities in any movement tending to restrict or diminish the spread of tuberculosis.

6. Conference. As in the case of any state or national association, one of the most important functions of the broader organization is the annual conference or convention for the interchange of views and experiences acquired through the local work. Waste of energy is thus prevented and a unity of purpose is given to the general plan. With a group of earnest men and women in every town working along local lines and then coming together on broader state or national lines there cannot fail in time the awakening in each individual citizen of a

sense of personal responsibility in the great work.

Relationship to National Association.

—While the policy of the National Society for the Study and Prevention of Tuberculosis has been to stimulate the organization of state associations formed on similar lines, yet it does not regard the latter as under its control. Whenever a State Association has been organized under sound auspices, it is regarded as "affiliated," this action carrying with it the right of representation in the Advisory Council of the National Association and assuring the co-operation of the latter in all work that may be undertaken in a given state. This plan of procedure is a wise one in that it leaves each state independent to work out its problem according to local conditions and without regard to fixed rules.

Meeting for Organization.

Preparations for this meeting had been made by sending out about two months beforehand letters to seventy-five leading physicians throughout the State asking the appointment of a local committee composed in part of laymen, and that such committees should select delegates for a meeting to be held in Detroit on February 21st. In spite of the relatively short time for preparation and the unfavorable weather, an audience of over three hundred was present at this meeting. The following program was received with enthusiasm:

PROGRAM.

1. Address of Welcome.....Hon.
Wm. B. Thompson, Mayor of Detroit
2. The International Congress on Tuberculosis.....Dr. C. G. Jennings, Chairman of the State Committee
3. Tuberculosis in Michigan.....
.....Dr. F. W. Shumway,
Lansing, Secretary State Board of Health
4. The Modern Medical Conception of
Tuberculosis
.....Dr. George Dock, Professor of
Internal Medicine, University of Michigan

5. The Anti-Tuberculosis Crusade.....
.....Dr. Victor C. Vaughan, Professor of Hygiene, University of Michigan
6. The Tuberculosis Problem in Detroit..
Dr. G. L. Kiefer, Health Officer of Detroit
7. The Michigan State Sanatorium for Tuberculosis.....Hon. F. B. Leland, President of the Board of Trustees
8. The Woman's Club as a Factor in the Fight Against Tuberculosis.....Mrs. Caroline Bartlett-Crane, Kalamazoo
9. The Work of Organization in MichiganDr. A. S. Warthin, Professor of Pathology, University of Michigan
10. Organization of State Association for the Study and Prevention of Tuberculosis.
Adoption of Constitution.
Election of Officers.
Discussion of Plans.

There followed a free discussion of the need for an anti-tuberculosis association in this state, as well as of the functions in general of such societies. The constitution given below was then unanimously adopted. Eighteen of the thirty Directors were chosen, but by unanimous vote the selection of the remaining twelve was left to a committee consisting of Drs. Jennings, Dock, Kiefer, Shumway and Warthin. Inasmuch as the Board of Directors elects the officers of the Association it became necessary to postpone further action. After a discussion of the plan of work outlined for the society and the State Exhibit at the International Congress, the meeting was adjourned.

The Michigan State Association for the Study and Prevention of Tuberculosis is, therefore, born. Before it lies a broad field for the prosecution of one of the greatest and noblest of humanitarian movements—the crusade against unnecessary and preventable disease and death. The success of this crusade in our state will be wholly what we make it, and we shall accomplish nothing if we do not push ahead vigorously now. If in each one of the local sub-committees there can be found one man or woman who has the inspiration and who

is willing to recognize the burden of responsibility, then I am sure, we shall succeed in our campaign within this state, for the starting-point of effective work will be found in the devoted enthusiasm of such men or women who realize the higher obligation to society. At the end of our first year we should have a hundred local sub-committees with a state membership of over five thousand. Detroit, Grand Rapids and Kalamazoo should each furnish over five hundred members, and with the good beginnings already made in these cities this should not be a difficult matter. Then a peripatetic state exhibit of the most instructive kind may be started on its travels, literature adapted to the local needs may be printed and distributed, lecture courses given, and we in Michigan shall be doing our part in the great educational crusade that ultimately shall gain the victory, not only over tuberculosis, but over all infection.

CONSTITUTION.

ARTICLE I.

The name of this Society shall be the Michigan State Association for the Prevention and Relief of Tuberculosis.

ARTICLE II.

The objects of the Association are:

1. Dissemination of knowledge concerning the causes, treatment and prevention of tuberculosis.
2. Investigation of the prevalence of tuberculosis in Michigan and the collecting and publishing of useful information.
3. Securing of proper legislation for the relief and prevention of tuberculosis.
4. Co-operation with the public authorities, State and Local Boards of Health, the National Association for the Study and Prevention of Tuberculosis, medical societies, and other organizations in approved measures adopted for the prevention of the disease.
5. The promotion of the organization and work of local societies in all parts of Michigan.

6. Encouragement of adequate provision for consumptives by the establishment of sanatoria, hospitals, dispensaries and otherwise.

ARTICLE III.

The meetings of the Association shall be held at such times and such places as may be directed under the By-Laws.

ARTICLE IV.

Amendment of Constitution.

Propositions to amend the Constitution may be presented in writing at any meeting of the Board of Directors or of the Association. They shall then be referred to the Board of Directors for consideration and report. The Board of Directors shall report such proposition for amendment at the next meeting of the Association, when action may be taken; provided, however, that no proposition for amendment shall be voted upon without at least thirty days' notice of the meeting at which it is to come up for action, which notice shall be sent to each member and shall set forth the proposed amendment in full. An affirmative vote of two-thirds of the members present at such meeting of the Association shall be required for adoption.

ARTICLE V.

The names and residences of the incorporators are:

BY-LAWS.

ARTICLE I—Membership.

(a) This Association shall consist primarily of the members of the local sub-committees formed throughout the various cities and towns of the State of Michigan. The dues of such members shall be \$1.00 per year, fifty cents of which is to be paid into the treasury of the Local Association and fifty cents to the treasury of the State Association, through the Treasurers of the local associations.

(b) All other persons not belonging to local associations, but who are interested in the objects of the Association, shall be eligible to membership in the State Association. The dues of such members shall be \$1.00 per year.

(c) Upon the payment of \$25.00 at one time, any member may become a life member.

(d) Persons paying at one time two hundred or more dollars may be elected patrons, and shall have all the privileges of members without the payment of dues.

(e) The Treasurer's receipt will constitute the acknowledgment of membership.

ARTICLE II—Board of Directors.

Section 1. The Board of Directors shall consist of 30 members elected by the Association. The Board shall be divided into five groups of six each to serve one, two, three four and five years respectively, the duration of office of the members of the first Board of Directors to be determined by lot. At each succeeding annual meeting of the Association six Directors shall be elected for terms of five years, and in case of vacancies in any groups Directors shall be elected for such unexpired terms.

Section 2. The Board of Directors shall make its own rules. The government of the Association, the planning of work, arrangement of meetings, the expenditure of moneys and all other matters pertaining to direction shall be in the hands of the Board to execute.

ARTICLE III—Election of Officers.

The Board of Directors shall elect annually from its own number a president, two vice-presidents, a secretary and a treasurer, who shall be the officers of the Association as well as of the Board. The Board of Directors may from time to time elect from outside its number such honorary vice-presidents of the Association as it deem proper.

ARTICLE IV—Executive Committee.

The Board of Directors shall appoint annually an Executive Committee consisting of the President and Secretary, ex-officio, and of five other members of the Board, and to this Committee shall be entrusted all the executive work of the Association.

ARTICLE V—Quorum.

Seven Directors shall constitute a quorum of the Board of Directors.

ARTICLE VI—Meetings.

There shall be at least one stated annual meeting of the Association at a time and place to be fixed by the Board of Directors. Other meetings may be called by the Board at such times as it shall deem proper.

ARTICLE VII—Delegates.

Upon due notification of the Annual Meeting of the State Association the local branches are to hold meetings for the purpose of electing delegates to said meeting. The number of such delegates shall not be limited.

ARTICLE VIII—Local Associations.

The Constitution, manner of organization, plan of action, etc., of the local associations shall be determined by said local associations to meet the local conditions.

The Crystalline Lens in Health and in Cataract.—After a short history of the discovery of cataract, SIR WM. J. COLLINS takes up the development of the lens and explains such anomalies as coloboma of the iris and choroid, capsulo-pupillary membrane and persistent hyaloid artery. He finds, as a result of experiments, that the normal lens is about 70% water and 30% solids, with 2% residual ash. These percentages, together with the specific gravity of 10.30 remain nearly constant throughout life. At birth, the lens weighs about 120 mg., and gradually increases until at 80 years it reaches approximately 260 mg. The volume, according to Becker, increases from 155 cmm. at 20 years to about 270 cmm. at 60. The anterior-posterior diameter increases about 2 mm. and the transverse about 5 mm. between youth and old age. Inasmuch as the specific gravity remains nearly constant, increase in weight means increase in volume, due largely to equatorial expansion, the intracapsular circum-scleral space being thereby gradually obliterated. The prevailing teaching that healthy lenses become more solid as time advances is therefore fallacious. Progressive loss of accommodation goes hand in hand with increase in size, to which fact alone is due the phenomenon of presbyopia. The theory that the ciliary muscle becomes enfeebled is at variance with the condition of other muscles, and is not borne out by microscopic examination. Senile cataractous lenses are usually

ARTICLE IX—Moneys.

The moneys received from membership dues and from all other sources shall be used for defraying the expenses of the Association and for furthering its objects under the direction of the Board of Directors.

ARTICLE X—Amendment of By-Laws.

The By-Laws may be amended by a two-thirds vote of the members present at the annual or a special meeting of the Association or of the Board of Directors; provided, that no proposition for amendment shall be voted upon without at least twenty days' notice of the meeting of the Association or of the Board of Directors at which it is to come up for action, which notice shall be sent to each member of the Association or of the Board of Directors and shall set forth the proposed amendment in full.

smaller and lighter than normal lenses of corresponding ages, although the percentage of solids is relatively greater. If cataract was an evidence of premature senility, we would expect the opposite to be true. The theory that the so-called black cataract is due to infiltration of haematin into an opaque lens is probably incorrect. Much more probable is it that the pigment is formed within the lens substance itself by a process analogous to that which takes place in the skin, to which the lens is related embryologically. Cataracts associated with myopia are prone to develop slowly, as are also those beginning at the posterior pole or those whose striae have a concavity forward. The writer believes in hastening maturation by iridectomy, providing the coloboma is made large and extends well up the ciliary border. Otherwise the result is disappointing. The paper closes with an extensive classification of cataracts based upon etiology.—*British Medical Journal*, December 2, 1905.

In the treatment of hand and finger infections, it is very important to release from bandaging as much and as many of the fingers as possible, and as soon as possible. The habit of bandaging up immovably all the fingers, in the treatment of a lesion of some of them, saves the surgeon time but, except in short cases, it often cripples the hand by stiffening the fingers.—*Am. Jour. of Surg.*

The Journal of the Michigan State Medical Society

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MARCH

Editorial

The compensation for the care of the indigent sick has always presented certain difficulties and until recently few solutions have been altogether satisfactory. The question was briefly discussed at the 1906 annual meeting and referred to the committee on contract practice for study. This committee delegated Dr. A. L. Seeley of Mayville, as a special committee, and he reported at the Saginaw meeting last year, the conditions as he had found them about the state and suggested a remedy.

The numerous suits between physicians and boards of supervisors, together with the constant discussions at county society meetings, afford ample proof that, at present, the profession is dissatisfied with existing arrangements, at least in those communities where the contract system prevails, as, according to the report of Doctor Seeley, is the case in 39 counties in the state. Formerly it was quite universal for the indigent to select their own physicians, the latter putting in claims for services rendered at the regular rates. The bills were frequently reduced by the boards of supervisors, and in some instances, these boards have, without consulting the profession, made out regular fee bills, as, for example, in Oakland county, where the fee is said to be \$2.40 for a

case necessitating a fifteen-mile drive. Rather than be browbeaten in this way, many physicians do not put in a claim for the work.

In at least 39 counties, the poor commissioners have been in the habit of canvassing the various townships and letting the poor work to the lowest bidder. This has not only introduced a belittling element into our professional work, but it has often been the cause of destroying the harmony which should exist among physicians who are neighbors. Furthermore, as the years have passed, the price paid has been gradually reduced until in some instances, a doctor will agree to look after all the indigent in his township, furnish medicines, surgical appliances and antitoxin, as well as examine any insane patients and treat small-pox, all for a sum, as low in some instances, as \$15.00 per year. In Midland county, it is said, the work at the poor farm was bid in at \$75.00 last year, while formerly \$500.00 was paid for the same service. Usually the man who is willing to contract to do work cheaply, does cheap work, and the result naturally is that the patients go to a better liked man who treats them as charity patients and says nothing about it. The contract man has little to do and to keep some one else from getting the work, bids it in the next year for \$10.00. This may not be universally true, but it is in certain specific instances of which we know, and surely it is the logical economic result of the system.

The sub-committee referred to above outlined a plan which would do away with this pernicious and degrading system—a plan which seemed a bit Utopian, but which has been successfully put into practice in two counties in the state.



How they solved this problem in Tuscola is now well known. Their success has attracted widespread attention in

many states, and has put Mayville on the map in the geography of medical economics. It was briefly described under "County Society News," last month, but deserves emphasis as an example of what a well organized county society can do.

The county society first became incorporated and then sent the following letter to the board of supervisors:

To the Honorable Board of Supervisors of Tuscola County: There is dissatisfaction existing in relation to the present method of rendering medical aid to the indigent poor of Tuscola county. First, among the people, because, by contracting with a certain physician to look after all the indigent cases in a certain township or district, they are robbed of the privilege of making their own choice of a physician, and are sometimes compelled to be treated by someone who is very distasteful to them and in whom they do not have that confidence and trust often so necessary to their comfort and satisfaction. Because of these peculiarities of people, a physician is sometimes called to care for and often does care for an indigent case for which he receives nothing because some other physician holds a contract for the township in which the patient lives.

With the candid desire of rendering these conditions more agreeable to all concerned, the Tuscola Medical Society has formulated a plan which, if adopted, it is believed will obviate the difficulty and make harmonious the relationship of patient, physician and supervisor.

The plan, simply stated, is this: Let the supervisors pay to our society an average sum each year, such sum to be based on what has been paid for the medical care of the indigent poor of the county for the past three years, and each member of the Tuscola Medical Society contracts to take care of all the indigent work that comes to him with an order from the supervisor.

Such a plan can cost the county no more for medical services than it has paid in the past. It will give to the poor patient the privilege of selecting the physician he would choose were he paying his own bills. It will tend to divide the indigent work more nearly equally among the several physicians of the county; and, at

the same time, it will put into the treasury of the County Medical Society a fund, a portion of which it purposed to use for the general improvement of the society and its members individually, thereby bringing, directly, a benefit to all the people of the county.

The plan was adopted by the supervisors and a contract drawn up and signed. In addition to the amount to be paid (about \$4,000), the county furnishes all antitoxin and agrees to recompense physicians for services in time of an epidemic of small-pox.

The plan has worked extremely well thus far, and in it is seen a solution of this vexing problem.



The Tri-County Society is also a pioneer in this line. That portion of the society (whose membership comprises the physicians of Wexford, Missaukee, and Kalkaska), residing in Cadillac, has made a somewhat similar arrangement, and the society is now receiving over \$1,000 for services for which an individual physician formerly received \$150. Each physician is doing practically the same amount of charity work as he did formerly, the society is gathering in a neat little sum each year and the ambitious in that city are discussing the possibility of a medical building—a possibility in Cadillac—a mere dream in many a larger city.



The trypsin treatment of cancer has been tried and found wanting. Launched upon the sea of the public press, as it was by Saleeby, months ago, it has been eagerly sought by the laity and credited with greater attributes than its originator, Dr. Beard, ever claimed. We have not a few times heard laymen criticize the medical profession because one of its number published an article so theatrically enthusiastic as Saleeby's,

and it must be admitted that such precipitate public endorsement was unwise; but the criticism should be aimed at the individual, rather than the profession at large.

As a matter of fact, the trypsin treatment has not provided a great advance in the therapeutics of cancer. Conscientious trials by clinicians have proven that cancer is probably no oftener cured by typism than by cancer-pastes, and not so often as by well-directed surgery. To be sure, it has been demonstrated that trypsin destroys cancer cells with which it comes in contact, but it has very little systemic effect in combating the disease; in short, it is practically a local medication, requiring to be injected into the diseased part in order to produce its fullest effects. Moreover, it must be used cautiously, because the products of a too rapid carcinomatous destruction cause severe toxemia and increase the patient's illness. Cases have been reported where injections were made remote from the site of growth and metastatic cancer promptly developed at point of injection.

The majority of reports indicate that trypsin hardly delays the fatal issue. It may at first produce remarkable retrogressions in cancerous lesions, but it seems seldom to inhibit metastasis, or to benefit the general condition. The profession, then, is not justified in using it in any but inoperable cases. Having thus far proven inferior to surgical methods, it should not be considered in operable cancer. If one cares to test its merits, it may well enough be used in hopeless cases. This should be the limitation of its use, until further research possibly gives us an improved method of preparation or administration.



The Ophthalmic-reaction of Tuberculosis.

No medical topic has excited a more widespread interest during the

past year than has the new test for tuberculosis, the so-called Calmette reaction. Although not discovered by Calmette, it was he who first worked out the details of the technic and who showed that when one drop of a one per cent solution or suspension of tuberculin is instilled into the eye of a patient having a tuberculous lesion, a distinct inflammatory reaction results. It is necessary that the tuberculin be free from glycerine, as the latter of itself will cause conjunctival irritation. The test is a simple one, and can be made by anyone, no expensive apparatus being necessary. It remains only to be proven a reliable test in order to become of the greatest practical importance.

Many of the communications on the subject have been in the French and German periodicals. It is worthy of note therefore, that two of the most important articles in English, both of which have recently appeared, are by our members. Hutchings¹ has prepared an "ophthalmic disc" of 10 mg. of tuberculin which can be dissolved in one cubic centimeter of distilled water, thus readily giving a one per cent solution. If one drop of such a solution be instilled into the eye of a tuberculous patient, after three to 24 hours, there is slight discomfort with reddening and lacrimation. There is no rise in temperature. The reaction disappears in from 18 to 36 hours. Hutchings reports 20 trials. The reaction was positive in seven out of eight cases of tuberculosis, one case of tuberculosis of the kidney not reacting. In twelve non-tuberculous patients the reaction was absent.

Smithies and Walker² have written an exhaustive article giving the results of 242 tests. Of the 76 apparently normal adults, only two reacted, and on subsequent inquiry, one was found to have an old tuberculosis of the knee and the

1. Therapeutic Gazette, December, 1907.

2. Jour. Am. Med. Assoc., Jan. 25, 1908.

other was not above suspicion. Eight clinically tuberculous patients failed to react, and ten clinically non-tuberculous gave positive results. Two of these latter were later proven tuberculous, but no lesions were demonstrable in the other eight. The great frequency of walled off tuberculosis in the apparently healthy would easily explain these eight instances.

A few instances of injury to the eye as a result of these instillations, have been reported. Among those who have studied these cases is de Lapersonne who investigated eight cases of supposed injury and came to the conclusion that the test is not harmful, but that the complications which are sometimes seen would make a most careful examination of the eye necessary before the tuberculin is used.

It is perhaps too early, at the present time, to say that this new test is a reliable one, but those who have had the most experience with it seem of the opinion that it will prove a valuable adjunct to diagnosis.



Do not forget to draw your pay for registering births during the past year. According to the provisions of an amendment to the law regarding the registration of births, passed on June 27th, 1908, physicians are entitled to a fee of fifty cents for each birth certificate which has been properly made and filed within ten days of the birth.

Call on the registrar of each township where the records have been filed for a blank, fill it in and have it certified. Send it then to the Secretary of State, Lansing, and a voucher on the County Treasurer will be mailed you. The list is to cover all certificates filed between June 27th, 1907, and April 1st, 1908.

The compensation is just. The bill providing for it was introduced at the instigation of the Washtenaw County

Society, and passed by the influence which the members of the State Society brought to bear upon their representatives. It means from \$20,000 to \$25,000 annually to the profession, and if collected will several times over pay the membership fees to the county, state and national organization of all our members.

Book Notices

Modern Medicine. Its Theory and Practice. In original Contributions by American and Foreign Authors. Edited by William Osler, M. D., Regius Professor of Medicine in Oxford University, England; formerly Professor of Medicine in Johns Hopkins University, Baltimore; in the University of Pennsylvania, Philadelphia and in McGill University, Montreal. Assisted by Thomas McCrea, M. D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore. In seven octavo volumes of about 900 pages each, illustrated. Volume III. Price per volume: cloth, \$6.00, net. Lea Brothers & Co., Philadelphia and New York, 1907.

The third volume of this splendid treatise completes the infectious diseases and diseases of the respiratory organs. Part II. on the respiratory tract takes up but 400 pages, as lobar pneumonia and tuberculosis are considered among the infectious diseases.

The first four chapters cover malta fever, beri beri, anthrax, rabies, and glanders. The fifth chapter, by Cole, is an important one on gonococcus infections. Each year has seen the widening of the field of affections caused by this organism, and Cole has brought the whole subject up to date in an admirable manner.

The most important subject dealt with in this volume is tuberculosis. It is treated by Baldwin, MacCallum and Brown in five chapters comprising 300 pages. Every phase of the topic is fully discussed, and these contributors deserve special praise for the excellence of their work. It is one of the best expositions of the subject in English.

Osler and Churchman discuss syphilis in a particularly readable manner, old facts being presented in a new and altogether delightful way. "Infectious Diseases of Doubtful Nature," by Boggs, treats of febricula, glandular fever, infectious jaundice, military fever, Rocky

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mountain fever, psittacosis, foot and mouth disease and milk sickness.

Part II. is introduced by an exhaustive and valuable chapter by T. R. Brown on the mechanics of respiration and of the respiratory diseases. "Hay Fever," by Dunbar, is a chapter deserving praise. Other good chapters are those on emphysema and broncho-pneumonia by Hare, and pleuritis by Lord.

This volume maintains the high standard of the first two. It is to be regretted that there is not more uniformity in the matter of references to the literature. To include long bibliographies is manifestly out of the question, but the inclusion of the main references as foot notes would take but little space and would be immensely valuable.

Taken as a whole, the monographs which have appeared in this system are all on a high plane, making it a most valuable addition to any library. Moreover, they are remarkably uniform and maintain their proper relations to one another, so that the whole work will be well worthy the name of "system of medicine."

A Text-Book of Physiology: for Medical Students and Physicians. By William H. Howell, Ph. D., M.D., LL.D., Professor of Physiology, Johns Hopkins University, Baltimore. Second edition, thoroughly revised. Octavo volume of 939 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, \$4.00 net; Half Morocco, \$5.50 net.

A rational system of medicine is based principally upon anatomy, pathology and physiology, although the latter science has had a less prominent part in the development of clinical medicine of the present day than its importance should have demanded. Clinicians are recognizing this fact more and more, so that practice is becoming more and more intimately connected with physiology. The time of the practitioner cannot be spent to better advantage than in reviewing physiology, and it can be done with no book better than with this. A thorough review of the latest knowledge along this line cannot but improve the practice of any man.

In revising the text of this edition, Howell has kept constantly in mind the two guiding principles noted in the first edition, namely, simplicity of style and limitation of the material selected. There are few men who possess the keen judgment required to justly es-

timate the value of conflicting theories in science. The science of physiology is replete with these conflicting theories, and Howell has been able, from his long experience as a teacher, to sift the evidence and emphasize the conclusions that are most justified by experience and observation.

The text is divided into nine sections, treating, respectively, of muscle and nerve, the central nervous system, the special senses, blood and lymph, circulation, respiration, digestion and secretion, nutrition and heat regulation and reproduction. The latter section is not usually found in text books on physiology. An appendix contains two sections on proteins and their classification, and diffusion and osmosis.

A knowledge of histology is presupposed and no matter pertaining to it has been inserted, as in many books on the subject. References are given to the classical monographs on each subject, and to the papers which themselves contain extensive bibliographies. Enough of the historical development of each subject is given to orient the reader.

A careful reading of much of the text has inspired the reviewer with a desire for further knowledge. One constantly realizes both the vast knowledge which we already have and the fertile fields yet to be tilled; that physiology is a science constantly growing.

It is a book from which everyone can gain much, and should be widely read by the profession. The author is known as a lecturer whose style is marked by sustained argument, lucidity and grace. He is delightful to listen to and his book is delightful to read.

The Internal Secretions and the Principles of Medicine. Charles E. de M. Sajous, M. D. Fellow of the College of Physicians of Philadelphia, etc. Volume II. with 25 illustrations. F. A. Davis & Co., Philadelphia.

It is difficult to review with fairness a book of this character. A perusal of the introduction discloses that the writer had hoped that the first volume would serve scientific investigators in physiology, pathology, and physiological chemistry as a guide to a speedy elucidation of the complex problems of the body functions in health and disease, and the effects of drugs thereon; but the scientists having disappointed him by persisting in working along

their own lines and in their own way, Dr. Sajous has been forced to undertake this great task himself. A list of 96 of the most important conclusions which are stated for the first time in this book suggests that in the past four years the author must have done an immense amount of difficult scientific work, for he is very emphatic in condemning the practice of theorizing from insufficient evidence. Study of the methods of research employed, as revealed in the various chapters, is not, however, convincing as to the value of the conclusions. Having collected such scientific data, often very meager, as are available regarding the ductless glands, Dr. Sajous proceeds to elaborate more or less plausible hypotheses regarding the relations of the gland secretions to various vital functions; accepting as he goes each hypothesis as a proved fact and elaborating again from it until finally he has built the ductless glands and the pituitary body into the "adrenal system," which normally regulates and controls all vital processes and determines immunity; while disturbances of its function are of fundamental importance in all pathogenesis. From this point he proceeds to a long discussion of the action of the various drugs on this "adrenal system," and then to a classification of diseases and an outline of treatment according to the theory of disturbed function of these glands. We find, for instance, that tetanus, epilepsy, eclampsia, rabies, gout, migraine, neuritis, etc., are due to hypoactivity of the adrenal system, while arteriosclerosis, angina pectoris, cerebral hemorrhage, diabetes mellitus, and others are due to its hyperactivity. The book is ponderous, and there are very numerous annotations to the text; referring one, however, only seldom to scientific literature, and very often to the "author's conclusions."

The mixture of scientific truths, half-truths, and theory is so intimate that it is often difficult to distinguish them.

It is only just to say that Dr. Sajous seems to have studied the literature of his subject thoroughly; that his reasoning is often very ingenious; and that in the present stage of our knowledge it is impossible to deny that some of his conclusions may prove correct; but few are likely to accept the book as the important revelations of new principles in the theory and practice of medicine which the author and publishers seem to consider it.

A Text-Book of Practical Diagnosis. The Use of Symptoms in the Diagnosis of Disease. By Hobart Amory Hare, M.D., Professor of Therapeutics in the Jefferson Medical College of Philadelphia. New (6th) edition, thoroughly revised and rewritten. Octavo, 616 pages, with 203 engravings and 16 full-page plates. Cloth, \$4.50, net. Lea Brothers & Co., Philadelphia, 1907.

The sixth edition of Hare's well known text book on diagnosis has appeared. It is a companion volume of the Text Book of Practical Therapeutics, a new edition of which recently appeared. The two make a very practical working set.

The chapters are divided so that some take up regions of the body, as "Face and Head," "Hands and Arms," "Feet and Legs," "Skin," etc. Others discuss prominent symptoms as "Headache and Vertigo," "Coma," "Convulsions or General Spasms," "Cough and Expectoration," "Pain," etc.

In using the usual text books on medicine a tentative diagnosis must first be made and that subject looked up in order to ascertain if the symptoms described correspond with those presented by the patient. This book is arranged so that the diagnosis may be reached by grouping the symptoms. For example, a "claw hand" may be recognized. To what is it due? To (1) disease of ulnar and median nerves, (2) disease of the cells in the spinal cord, (3) disease of the cells in the hand area of the cerebral cortex. Each of these causes is discussed at length and a differential diagnosis arrived at. This analytical method is pursued throughout. The style is clear and concise.

The book is a useful one and will not prove a disappointment.

Diseases of the Genito-Urinary Organs and the Kidney. By Robert Holmes Greene, A.M., M.D., Professor of Genito-Urinary Surgery, Medical Department of Fordham University, and Harlow Brooks, M. D., Assistant Professor of Pathologic Anatomy, University and Bellevue Hospital Medical School. Octavo; 536 pages, 292 illustrations. Cloth, \$5.00. Philadelphia, W. B. Saunders Co., 1907.

With few exceptions we find nothing new or wonderful in this work to commend itself to either physician or surgeon and our belief is that the authors have attempted to cover altogether too much ground in the 536 pages of the volume. Such a chapter as number five, for instance, should be eliminated from a book

of this kind. The practitioner of to-day with his reasonably well-stocked library does not consult this sort of work for the embryology, anatomy, etc., of the kidney; nor is he apt to be satisfied with the information he can obtain in chapter eleven, which seeks in 25 pages to treat of Bright's disease from its pathology to treatment, inclusive.

Space is wasted in too many instances through the insertion of illustrations of instruments and apparatus with which everyone is familiar or with which no one can become familiar unless he sees and handles them for himself, a fault to be justly found in many modern books: we refer to cuts of such things as Bigelow's Lithotrite and Evacuator, Otis' Meatotome, Valentine's Irrigating Outfit, whalebone guides, etc. We have seen these in book after book since the beginning of time and we can always find them in the catalogues of every surgical instrument house in the country. It appears to us always as an attempt to justify the statement that a work is "well illustrated." In one particular, this work is well illustrated: we refer to the excellence of the cuts of pathological specimens; indeed the specific pathology set forth is very good.

With the possible objection to the author's advice that in treatment of acute gonorrhreal urethritis, it is wise to refrain from all local treatment until four to six weeks after the onset of the symptoms, we have no fault to find with the book; our chief criticism lies in the fact that it offers little to justify our active commendation.

A Text-Book of the Practice of Medicine. By James M. Anders, M.D., Ph.D., LL.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Eighth Revised Edition. Octavo of 1317 pages, fully illustrated. Philadelphia: W. B. Saunders Company, 1907. Cloth, \$5.60 net.

The eighth edition of Dr. Anders' text book on practice has lately appeared, with some additions as well as revisions. There are very few changes in the infectious diseases, except in so far as treatment of some of them is outlined. Under cerebro-spinal meningitis we fail to find a discussion of the anti-meningococcus sera; under differential diagnosis the text speaks of "tubercular" meningitis. On page 197 we meet with some very interesting data concerning the treatment of smallpox. After

stating some of the simple methods of treatment, the author says, "Occasionally a wild delirium may necessitate a combination of sodium bromide grs. xv with tincture of opium, minimis v." It is questionable whether the severe delirium, such as we see in the first, or the pustular stage of variola, will yield to such a small dosage.

Under the head of vaccination it is deplorable to find the methods of technique that are described. The scraping of the skin and caustic potash application for removing the epidermis, should long have been relegated and more satisfactory and aseptic methods of linear incision recommended.

The chapter on parasitic diseases shows careful work. We are indeed glad to see some new plates, and indeed excellent ones, showing the cycle of the malaria parasite; they are reproduced from the Johns Hopkins Hospital reports. Just why relapsing fever should be placed after the parasitic diseases, such as taenia and pediculosis, cannot be surmised.

The chapter on diabetes is excellently written, although the author recommends the giving of alkalies when coma threatens. We believe, he should not wait that long but distinctly recommend its exhibition during all stages of severe cases.

It seems that modern text book writers on internal medicine cannot wean themselves away from arthritis deformans or rheumatoid gout. The newer pathology on this subject should have been recognized in a text book revised as late as August, 1907, and the proper divisions, such as Goldthwaite and Nathan have established, should at least have been given recognition.

The chapter on gout is well written in the main, but is spoilt by the differential table distinguishing it from rheumatoid arthritis. This chapter is followed by one on lithemia. The most that can be said for it is that it is short.

Part IV, on diseases of the blood and ductless glands, should have received more consideration and space. We believe the author places too much reliance on arsenic in pernicious anemia, when he says that its value is analogous to that of iron in chlorosis. More careful directions in regard to nutritious feeding and fresh air, together with care of the digestive tract, should have been mentioned.

In the chapter on exophthalmic goitre, more stress should have been placed on substances

like thyroidin than devoting space to a prescription which benefited two cases of the author's "after persistent use for six months."

The section on diseases of the circulatory system is excellently written. It contains much of the newer work on cardiac arrhythmias, and would be faultless were some of the meaningless cardiograms and pet prescriptions omitted.

In part VII., diseases of the digestive tract have not been changed much from the early edition nor has the division on the urinary system suffered much alteration in the following division.

The remainder of the text shows careful work, though we believe that the chapter on heat stroke is involved and confusing. It would have been better to make a division, such as most recognized text books observe, between sun stroke and heat prostration under separate headings. The book is carefully indexed and well printed; the few illustrations are so good that they suggest the want of more.

A Treatise on Diseases of the Skin. For the use of advanced Students and Practitioners. By Henry W. Stelwagon, M.D., Ph.D., Professor of Dermatology, Jefferson Medical College, Philadelphia. Fifth Edition, revised. Octavo of 1150 pages, with 267 text-illustrations, and 35 full-page colored and half-tone plates. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, \$6.00 net.

This one-volume treatise, consisting of 1,150 pages, with its profusion of excellent illustrations and plates, is set up in most attractive type, and substantially bound.

The author, who is so widely known to the medical world, has again thoroughly revised this excellent treatise. After four such thorough revisions as the author has made of this work, little, if anything, can be found in adverse criticism of the work, but much in commendation. He has put into it not only the results of his extensive experience, but, added to this, all valuable new material which has come from all parts of the world. Best of all, he has weeded out a great deal of obsolete material.

The first 129 pages are a descriptive treatise on the "Anatomy and Physiology of the Skin." This is followed by subjective and objective symptoms. This is followed by a general "Symptomatol-

with a most instructive classification of the elementary, or primary lesions, and consecutive or secondary lesions, each type being clearly illustrated.

The General Etiology, Pathology, Diagnosis and Treatment, both constitutional and local, are next taken up in a thoroughly up-to-date manner, much space being given to the newer, local measures, such as Radiotherapy, Actinotherapy, and High Frequency Current.

The classification of diseases is that of Hebra, with Crocker's modification, the author considering this combination the best for actual study, though it is as yet unsatisfactory; changes are forthcoming, as the pathology of some groups of diseases is more clearly settled.

The nomenclature of dermatological diseases is becoming less difficult because of better classification, ceasing to be a nightmare to the student; and its pathology is no longer a joke to the pathologist.

The description of the diseases is most thorough and clear, with complete references to the recent literature. The profusion of excellent illustrations, especially those of syphilis and small pox, add greatly, in a diagnostic way, to the interest of the text, a greater part of these being selected from the author's own collection.

Some of the newer diseases as Dhobie-itch, and Uncinarial Dermatitis or Ground-itch, are taken up in this edition. They have not appeared in previous editions, and are of added interest because of our new possessions in the Tropics.

The treatise as a whole is excelled by no other in completeness. It is, therefore, one of the best guides to the student in dermatology. The author and his assistants are to be congratulated.

International Clinics. Seventeenth Series. Vol. IV. Octavo, pp. 307, illustrated. Philadelphia, J. B. Lippincott Company, 1907.

The new editor of the International Clinics has more than maintained, during the past year, the high reputation of this series. The articles which have appeared have been better than ever.

The last volume of the year contains thirty original communications from men of authority. Among them one on the ophthalmo-

reaction of tuberculosis by Calmette, and another on "Five Years' Experience with an Anti-typhoid Serum" by Chantemesse. Warthin, of Ann Arbor, contributes to this volume a paper on the comparison of the X-ray and arsenic treatment of leukaemia.

Woman. A Treatise on the Normal and Pathological Emotion of Feminine Love. By Bernard S. Talmey, M.D., Gynecologist to the Metropolitan Hospital and Dispensary, New York, pp. ix.-228, with 22 Drawings in the Text. Price, in flexible leather covers, \$3.00. Stanley Press Corporation, New York, 1907.

The author says, in his preface, that he has ransacked the libraries, for the past few years, for information on the feminine amatory emotions, and that the fruit of his labor is this medico-philosophical treatise. He has touched upon many topics in sexuality and the information seems reliable.

The Sexual Instinct. Its Use and Dangers as Affecting Heredity and Morals. By James Foster Scott, Washington, D. C. 8 vo., 465 pp. Price, \$2.00. E. B. Treat & Company, New York, 1908.

This is one of the cleanest and plainest of the books on this important subject which has appeared. It is intended for the laity and can be highly recommended. It should be widely read, and if read with the right spirit, should be conducive of much good.

The Correction of Featural Imperfections. By Charles C. Miller, M.D. Cloth, 5x7 in., 133 pages. Cloth, \$1.50. Published by the author, 70 State street, Chicago.

This little book contains several papers published in various medical journals by the author during the past year. Ninety pages are devoted to text and the remainder to illustrations. The description of the operations is couched in such a vague style that one is forced to the conclusion that he must send his patients to the author rather than attempt to remedy defects himself.

The Archives of Internal Medicine, which appeared for the first time in January, is edited by a publication committee of internists and

printed on the presses of the American Medical Association. In general make up, this new journal resembles the *Journal of Experimental Medicine*. The paper is excellent and the type good. The first number contains five original articles, including two by Michigan men: "Trichomonas Hominis Intestinalis," by Dr. Hugo A. Freund, of Detroit, and "An Experimental Study of the Action of Oil on Gastric Acidity and Motility," written jointly by Dr. D. M. Cowie of Ann Arbor and Dr. J. F. Munson of Sonyma, N. Y.

The subscription price of the Archives is \$4.00, which should be sent to the American Medical Association.

County Society News

Antrim.

The annual meeting of the Antrim County Medical Society was held in Mancelona, January 8. The following officers were elected: President, Dr. J. C. Gauntlet, Elk Rapids; vice-president, Dr. F. S. Hoag, Alden; secretary-treasurer, Dr. L. L. Willoughby, Mancelona; program committee, Drs. C. V. Hinman, F. S. Hoag and William Evans; board of directors, Drs. H. A. Stewart, to fill vacancy; delegate to State Society, Dr. J. C. Gauntlet.

The matter of contract poor work was discussed and the following resolution adopted:

Be it Resolved, That the members of the Antrim County Medical Society refrain from entering into any contract with any Township or County Official for the care of the indigent sick, and that any member so doing shall forfeit his membership in the Antrim County Medical Society, and that the members of the Society refuse to counsel with such former member.

The society will meet the first Wednesday of January, April, July and October.

L. L. WILLOUGHBY, Secretary.

Barry.

At the annual meeting of the Barry County Medical Society, held December 19, 1907, Dr.

R. V. Gallagher, of Dowling, was elected president; Dr. F. G. Sheffield, of Hastings, secretary-treasurer; Drs. R. V. Gallagher, Dowling, C. H. Russell, Hastings, and J. W. Rigterink, Freeport, board of supervisors; delegate, Dr. J. G. McGuffin, Hastings; alternate, A. I. Laughlin, Woodbury.

F. G. SHEFFIELD, Secretary.

Emmet.

The first meeting of the year of the Emmet County Medical Society was held in the Cushman House parlors, January 14, 1908, with the president, Dr. L. W. Gardner, of Harbor Springs, in the chair. Nearly all of the members were present, and the meeting proved to be the most instructive and interesting of any held for some time.

The following program was carried out: "Operative Treatment of Hydrocele," Dr. Ni-hart; "Diseases Now Prevalent in Emmet County," Dr. Crotser; "Former and Modern Gynecology," Dr. Gardner; "Operative Treatment of the Thyroid Gland," Dr. J. Reycraft. Each paper was freely and ably discussed.

The following resolution was proposed and passed: "That previous statement regarding Dr. J. Pedden and the Lodge of Eagles, as published in the December Journal, was not in accord with said minutes of the meeting, but that Dr. Pedden was then practicing under contract with Eagle Lodge, which was contrary to a resolution of the society. But promising not to sign like contract after present one expires, he was retained as a member."

The society then adjourned to meet for a banquet at 7 p. m. After an hour's waiting, the members marched, to the strains of music, to the spacious dining-room, where a four-course lunch was served. Dr. John Reycraft, in his usual happy manner, presided over the aftermath.

G. W. NIHART, Secretary.

Manistee.

At the annual meeting of the Manistee County Medical Society, Dr. J. A. Christianson was elected president and Dr. Harlan MacMullen secretary.

Plans for the entertainment of the state society on June 24 and 25 were discussed and special committees appointed for making the

necessary arrangements. Dr. G. F. Knowles was appointed to represent the Manistee society at the meeting of the Committee in Scientific Work, February 6.

HARLAN MACMULLEN, Secretary.

Houghton.

At the regular monthly meeting of the Houghton County Medical Society, held at the Douglas Opera House, Houghton, Monday evening, January 6, 1908, Dr. Henry M. Joy, of the Calumet & Hecla staff of physicians, Calumet, read a very interesting and scientific paper on "Carcinoma of the Pancreas," with the report of a case. This paper was thoroughly discussed by Drs. N. S. McDonald, of the Quincy Mine, and W. K. West, of the Copper Range Consolidated Company. (Dr. Joy's paper will appear next month.)

The second paper of the evening, on "Early Diagnosis of Tuberculosis," by Dr. Robert B. Harkness, of Houghton, brought out many new points and emphasized many old ones, which with the discussion they provoked proved decidedly profitable. The Calmette reaction was dwelt on more at length by one of the leaders of the discussion, although having tried it on a series of suspected and undoubted cases, the result was rather unsatisfactory because of the doubtful purity of the tuberculin he used. In general, however, in those cases which reacted positively the intensity of the reaction was in inverse proportion to the extent of the lesion.

Dr. Leroy W. Childs, of Baltic, who led the discussion from the laboratory standpoint, exhibited a patient with the reaction still intact. This patient had very few and these only indefinite physical pulmonary signs, but bacilli had been found in the sputum. He reported a series of fifteen cases in which he had tried the reaction, and while he considered this a very small amount of material on which to form a decided opinion, and the length of time he had worked with it had been short, his results would justify him in concluding it of inestimable value.

Out of fifteen cases he had twelve positive reactions and in only six of which he could positively prove the existence of tuberculosis previously; one case of hip-joint disease in a child less than two years old, and another, a clinical case of dactylitis, were not positive,

but both of the patients cried so hard that the solution might easily have been washed out. In general his experience was that the intensity of the reaction was in inverse proportion to the severity of the lesions.

At the meeting held at the Calumet hotel, February 3rd, Dr. A. B. Simonson, chief of the Calumet & Hecla staff of physicians, read a paper on "The Complications of Pneumonia." Dr. C. H. Rodi and Dr. A. F. Fisher discussed the paper.

Dr. W. T. King, of Allouez, reported a very singular case of hiccoughs in a woman, which had persisted for fourteen weeks despite the application of all known remedies to relieve. A small abdominal tumor near Poupart's ligament being discovered, he performed an exploratory laparotomy, removing this tumor, which proved to be an infantile kidney. Immediately succeeding this operation the patient ceased hiccoughing. He was unable to explain the reason.

W. D. WHITTEN, Secretary.

Wayne.

At the January meeting of the Surgical Section, Dr. M. A. Fechheimer read a paper on "The Treatment of Chronic Gonorrhea."

Abstract.—Gonorrhea continuing longer than six weeks is classed as chronic. While the discharge shows gonococci copious irrigations of mild solutions of silver albuminates are to be used. Albargin (1 to 1000) gives satisfactory results. When gonococci have disappeared, mercury oxycyanatum (1 to 4000) is indicated as an irrigation, especially where there has been a mixed infection.

Urethrascopic examinations should be made and localized lesions, if found, may receive their proper treatment. Frequently the lacunae of Morgagni are found inflamed. If but one or two are involved they may be treated with the galvano cautery, the electrolytic needle, the application of strong silver nitrate solutions, or by slitting open. If several are affected introduce full-sized sounds and massage the urethra. Alternating with this there may be applied to the upper wall of the canal a one to three per cent solution of copper lactate glycerine.

The prostate is frequently involved. Following an urethral irrigation the bladder is filled with the oxycyanide of mercury solution,

the prostate is massaged and the patient then allowed to empty the bladder. An instillation of copper lactate solution in glycerine may then be made.

In stubborn cases of chronic urethritis the injection twice daily of four or five cu. cent. of a five to ten per cent solution of peroxide of hydrogen and its retention for one to three hours has given favorable results when other forms of treatment have failed.

Of drugs used internally sandal wood oil stands at the head. Alcohol should be forbidden.

Dr. N. E. Aronstam presented a paper on "Spermatoctystitis." **Abstract.**—This paper considers only the gonorrhreal infection of the seminal vesicles. The frequency of such infections following urethritis is underestimated. The practice of examining the vesicles per rectum in every case of gonorrhea will show the condition in many cases otherwise unsuspected.

Symptoms, Acute.—Feeling of fullness in the perineum and rectum; defecation is painful, and painful emissions occur. There may be symptoms suggesting extension into the epididymis but without tenderness and swelling of this organ. Chills, backache and vomiting indicate a more intense infection. The examining finger detects a boggy edema at the base of the prostate and a bulging of the vesicles.

Chronic.—Subjective symptoms are almost nil. There is very little tenderness. A persistent urethral discharge similar to that of chronic posterior urethritis. Rectal examination reveals an enlarged seminal vesicle about the size of a bean. The ungloved finger should be employed in making the examination.

Treatment of Acute Form.—Urinary antisepsics, especially the balsamics, cold to the perineum, continuous current of warm saline per rectum. Rectal suppositories of opium and belladonna if urinary tenesmus is marked. No cathartics should be given. Rest in bed is essential and sometimes sufficient alone.

Of Chronic Form.—The outlook is gloomy and the treatment unsatisfactory. The most rational measure to employ in the usual case is the insertion of large sounds medicated with an ointment of silver nitrate and balsam peruviana, or of ichthyol and adrenalin. These should be used three times per week and kept in place

for ten or fifteen minutes. Vasectomy and drainage of the prostate have been done in very obstinate cases and with some success. Rectal irrigation with hot saline is a valuable adjunct. Vesicle massage may be of value but should be discontinued if no abatement of the urethral discharge occurs in three weeks.

CLARENCE E. SIMPSON,
Secretary.

DOES THE MEDICAL SOCIETY PAY?

C. S. Cope, M. D.

Secretary of the Ionia County Medical Society.

This question is frequently put to those who are actively interested in promoting such societies, and this question put in the way it is, serves often as a stumbling block in the path of those to whom such societies are or would be of the most benefit. The propounder of this question always has his answer ready—which is, "No, they do not."

It is to clear up a few doubts and to set forth a few facts that I ask for your space to tell what I have learned along this line. When the Ionia County Medical Society was organized six years ago, but few could be induced to attend and a fewer number to join, but with the few faithful and devoted men who met with us from the first we held our meetings, read our papers, had our social times and banquets and went home rested, refreshed and instructed. As time wore on some became luke-warm, some moved away and some dropped out, but a remnant remained who kept alive the holy fire.

By concerted action we began inducing others to come, each member striving to be present at every meeting, and bye and bye more came with us. This last year has seen a wonderful ingathering, so that now nearly every eligible doctor in the county is a member.

What has been accomplished? The old caste or barrier of school or pathy has been effectually carried away. We now know each other as physicians, each man using those means and methods best known to him in the treatment of disease, with none to criticize or comment on his way of healing the sick.

We have established a new fee bill in which every one in the county, be he a member of the society or not, is benefited. The rates for

county work heretofore has been too low—25 cents a mile one way was the prevailing price. The rate now established is \$1.00 for the visit and 50 cents a mile one way, measured from the doctor's office. In some outlying country places the charge will for a time remain at 25 cents, but in time this will all be brought up to 50 cents. When a physician attends a case for a long time and the patient finally passes away, or in case the bill has to come before an administrator for settlement, the charge for mileage can be made at 50 cents, and collected, too, for that is the fee established by the county society. In a large part of the county 50 cents is the prevailing price. It is only in the outskirts, or when the cheaper rates of contiguous territory appear, that a lower rate prevails. If every county would put its price to this mark—and every physician demand it—there would be no trouble in collecting it, for surely there is no profit to the doctors at a 25-cent mileage, and to no class of people has prosperity come as it has to the farmers.

Another important thing we have done is the securing of a hearing before the County Board of Supervisors. It has long been a source of severe trial to physicians who have had to treat cases of contagious diseases among the indigent to have to wait six months for a hearing and then to have their bills for service cut one-third to one-half without recourse.

The Ionia County Medical Society took up this subject in a businesslike way. We began by agitation among ourselves, frequent meetings were called, and special meetings, and suppers, and smokers, and banquets. Much personal work was done among the doctors, till finally they all got together and framed a fee bill and made some declarations, and we called in expert legal advice. Of this I will speak later. The introduction of our new fee bill got us fairly before the public, and the papers gave it to us hot and heavy, but we kept on our way. The fact that we were thinking of attacking so august a body as the Board of Supervisors (an unheard of thing) got into the papers also, and to our surprise the supervisors notified us that they had appointed a committee to confer with a committee from our society as to some things that might come up in the future, but no offer of concession was made for the present. There were then pending many bills for smallpox at

\$5.00 a visit, which had been cut to \$3.00. Some of the doctors had collected what was allowed, but some said they would have a mandamus proceeding instituted rather than take a lessened fee. A committee from our society went before the Supervisors and, although the doctors are usually quiet fellows, they surprised themselves and the Supervisors by the speechmaking.

The session lasted over three hours, with someone talking all the time. It was pointed out clearly to the Supervisors that we knew that they were purely politicians, and it was not for the benefit of the county or for any consideration they had for the poor of the county that they cut the doctors' bills, but merely that they might be able to return to their constituency and say: "See here what a lot in taxes we have saved you by keeping these doctors from robbing you." Now, we said we will call a spade a spade and so will clearly understand each other. The twentieth century is full of surprises, and of none more so than for the politician. Heretofore you have treated with the doctor individually and have had your own way. Now you must treat with him collectively, and as such you encounter an unknown force and influence you have never dreamed of, and if reasonable consideration is not shown to the bills now before you some of you may be retired to private life after the next election. They at once went up in the air and tried the mighty bluff, but when they were told that every doctor in the city of Ionia and nearly every one in the county were members of the county society, and those not members were in hearty accord with our movements; that in addition to a solid county organization we had district and state and national affiliations all inter-related, all depending on the county as a unit, and all moving in unison, they began to calm down.

We then stated that the doctor, like charity, "had suffered long and had been kind," but that now he was ready to ask for what was his by right. The statement was made that it was a doctor and not Roosevelt who commanded the "Rough Riders." That this doctor cleaned up Santiago, the filthiest place on the western continent, and made of it a health resort. That he did the same for Havana, and that after many great generals had gone to the Philippines and returned without accomplishing anything. That this selfsame doctor was

sent there and that his control brought order out of chaos, and that he had been advanced over the heads of many army men and made a major-general. By this time they were taking long breaths, and were electrified when one member of the committee stated, as he had before the Medical Society, "I name to you a future President of the United States, the man who more nearly would fill Roosevelt's place than any candidate in the field. I name you Dr. Leonard Wood, Major-General, U. S. A.—the man who does things."

They were reminded that recently an admiral of the navy had resigned because a doctor had received an appointment to command a ship. That the President had commended the doctor's appointment and had reprimanded the admiral, for the admiral was only a stickler for red tape, while the doctor's appointment was for the good of the service.

In conclusion it was averred that the Medical Society as it now stands, a wheel within a wheel—National, State and County—is a powerful political organization as regards things medical, and that the doctor is in politics to stay. That without the doctor and the fruits of his works commerce could not proceed, and that the doctor and what he had done and is doing to prevent sickness and preserve health in sanitation and hygiene and therapeutics constituted one of the most valuable assets of Uncle Sam.

Now as to results:

That Board acceded to all our demands. They went back to those accounts that had been cut, and paid as cut, and paid these, as well as all the rest, in full. A precedent has been established and in future \$5.00 will be the amount paid for smallpox visits.

The foregoing is an apt illustration of a statement made in his Berlin lectures, 1906, on "Industrial America," by Professor Laughlin, viz.: "When the public, comparatively untrained but forceful and energetic, moves under some common impulse, the effect is overwhelming. Force is the permanent characteristic of the American people, and with this goes an abiding optimism and belief that the ideal thing will soon come to its own."

The legal opinion spoken of earlier is, that under the law as it now stands, the Supervisors have the right to cut any bill down to what they may consider a reasonable price. This is

just when properly exercised, as it is calculated to prevent wrong.

The proper steps for physicians now to take is to first make a written contract signed by the township board and the physician. In this a stated sum per visit is agreed upon and the township, and not the county, must pay. This takes it out of the hands, or rather prevents its falling into the hands of the County Board of Supervisors.

Now this thought presents itself: Why should not the State Medical Journal office prepare and print proper blanks for physicians to use in such cases and furnish such to the secretaries of county societies, who for a reasonable sum could furnish them to such physicians as would need them. This would furnish the doctor with a proper blank to present to the township, village or city board, so that he could draw his pay from the start and not be hindered by red-tape delays.

In closing, let me tell a story that may help you in giving an answer to the question forming the caption to this paper. When I was a lad of twelve and wore copper-toed boots "and filled my father's house with racket," the great Civil War was in progress. Out of a family of eight boys, two were already in the field. The third to go was my brother John, just a little past seventeen.

He marched away with his regiment, the Ninety-eighth Ohio Volunteer Infantry. Given a musket and a suit of blue, he was sent to Kentucky to guard his home from a southern invasion. At the same time a regiment was marching from the Gulf states, and some other boy of like age, with a musket and a suit of gray, was sent to Kentucky to guard his southern home from a northern invasion. These met in the battle of Perryville, and there these two young fellows, both equally brave, both equally patriotic, stood up and fired their muskets at each other. They should have been playing football on some college campus or singing college songs. The battle waxed hot, the northern line was driven back, and Brother John fell and was reported in the column of the dead. How it fared with the boy in gray I do not know. History says that the first day of that fight was favorable to southern arms.

I well recall the day when the news came to us of this battle and its dire results, and what it held for us. We just all clung to each

other and with arms entwined about each other we sat down and cried. We could hardly make it seem real that John was dead—the genial, loving boy who had been with us only six weeks before. The days of grief were poignant and we could not be comforted. Finally grief gave way to resignation, and with tender hearts and tearless eyes we took up again the great burden of life. "We had passed from death into life." In the still evenings, when the atmospheric conditions were favorable for sounds to travel long distances, we could hear the boom of cannonading in the Virginia mountains, where our two older brothers were bivouaced.

Then one day a curious thing happened. Someone had been to the postoffice and brought home a soiled envelope directed in a strange handwriting and bearing the Louisville postmark. On opening the letter a soiled piece of paper was found on which was scrawled some almost unintelligible chirography. No name was signed, no date given. All we could make out was "wounded and in Louisville hospital." We looked at each other and said, "Can it be possible he is yet alive." Soon a trusted messenger was sent, and in a few days returned with our John, a wounded soldier, and this was the story he told:

"We were ordered to fall back, and as I was passing over a knoll I was shot in the ankle and fainted away. When consciousness returned I found that I was in the rear of the rebel army, they having passed me in their charge. I broke my gun, threw away my ammunition, tied up my leg with my handkerchief and put my foot up beside a fence. No sooner had I done this than a sharpshooter put a buckshot in my shinbone. I took down the leg. The rebels now came back with prisoners and wounded and I was carried to a tobacco warehouse and laid on the floor in a row with the other wounded men. Here I lay for several hours till the surgeon came. He passed several times among the men, and on coming to me stopped and seemed to be thinking deeply. He abruptly accosted me, asking 'Is your name Cope?' I replied, 'It is.' He said, 'I know your father. He and I were co-workers in the old Belmont County, Ohio, Medical Society, and many a fine address has he given us as our society itinerated from Barnesville to Bridgeport, and from St. Clairsville to Morristown. He is a grand man and

I respect him greatly. I knew you for an Ohio soldier from your belt, whose buckle bears the letters O. V. I. I have observed that in death or great shock the features bring out the family resemblances at their best. I moved to Kentucky some years ago, and when the war came went by preference with the South. My name is Bushrod Johnstone."

My brother's wounds were tenderly dressed. He was taken from the tobacco warehouse and placed in a church at Harrodsburgh that had been converted into a hospital, and as soon as his wounds permitted he was given a parole, money enough for his needs and sent through the lines, when he made his way to the hospital at Louisville.

What is your answer to the caption to this paper?

Correspondence.

New York City, February 10, 1908.
To the Medical Profession of Michigan:

The government and the people of the Republic of Guatemala, as well as the National Committee of the Fifth Pan-American Medical Congress, are actively endeavoring to do all in their power, in a sure and efficient way, to make this meeting a great success.

With this object in view the Committee will be pleased to invite you personally to attend, as well as the members of the society or medical fraternity to which you belong, in order that through your presence and works the certain success of the Congress, that science expects of its representatives, will be assured.

The Committee hopes that you and the other members of your institutions will meet at Guatemala on the 5th, 6th, 7th, 8th, 9th and 10th of August, 1908, and sincerely begs that from now on you will not hesitate to keep yourself in fraternal relations with this Committee, and also that you will let us know beforehand if you intend to attend the Congress in person or to send some scientific contribution.

The Committee hopes to receive a reply shortly to the invitation to this meeting, to stimulate the advance of medical science and to contribute to the preservation of the health

and the prolongation of the life of the people of the Americas.

We take advantage of this opportunity to express to you the best regards of

Yours very truly,
JUAN J. ARTEAGA, President.
JOSE AZURDIA, Secretary.

Apropos of the resolutions which were adopted at the last annual meeting regarding full surgical aid to the injured, the following correspondence with the state agent of the Travelers Insurance Company is of interest. From this correspondence it is evident that there is a business side as well as a professional aspect to the question.

The resolutions passed were:

"Dr. F. W. Robbins, Detroit, moved the adoption of the following resolutions:

"Whereas, Several accident and liability companies have in the past, and do now, write policies granting full surgical aid to the injured, and

"Whereas, Such aid is given by the surgeons without adequate compensation, and

"Whereas, In many ways, such contracts, as regards the surgeons, are non-professional, unjust and dangerous,

"Be it Resolved, That the Michigan State Medical Society earnestly protests against any such accident and liability contract being written in the State of Michigan whereby full surgical aid is assumed.

"Be it further Resolved, That a copy of these resolutions be forwarded to the secretary and chief medical officer of each accident and liability company doing business in Michigan.

Detroit, Mich., January 27, 1908.
Secretary of Michigan State Medical Society:

Dear Sir:—I beg to acknowledge receipt of the extra copies of resolutions requested.

I have been combatting this very thing as a matter of business for some four or five years, and with quite a degree of success. I am enclosing a copy of a little article I wrote up some time ago, which has been used considerably throughout the state. The fact of the matter is, that in a great many of these

Full Aid cases, doctors have created misdemeanors, which should not be tolerated, for I feel that any doctor, irrespective of the financial conditions, should render the very best services possible, even from a humane standpoint if for no other reason.

This little article may throw some light upon this matter.

Yours very truly,
E. S. RAYMOND,
State Manager.

"Full Aid" a Failure.

The fact is that its tendency has been to increase the number of damage suits.

This disposition to do too much has led the employes to think "Why so good," and wonder if the motive is not to appease a disposition he may have to bring a "claim" or a "suit." He seeks the attorney, frequently the shyster lawyer; the latter's depredations are too sadly known.

Again, such service will only be rendered by the usually otherwise "unsuccessful" doctor. Good surgeons will not work for the small consideration paid by liability companies giving "full aid." Liability companies have frequently sought to enlarge their premium income at the expense of the medical profession, and are rendering such aid as would not be acceptable in the average family—of course, there are exceptions, but they are few.

The service is inferior. Usually the policyholder must confine his calls to the one doctor. The outcome is patent. He cannot be found—another doctor is called—who pays the bill? The instances are many where the insuring company has refused.

The injured, no matter who he is, is entitled to the best. Liability companies cannot give that. Doctors' bills are not a subject of insurance on so large a plan. Conditions are too varying. Satisfactory first aid service can be rendered, but even this is unadvisable—perhaps necessary. However, such service frequently increases the cost of specific classifications and necessitates re-ratings. Many plants have essentially prohibitive rates. "Some one must pay the piper."

In many cases, and quite universally, full aid service (poor, and by surgeons so-called) has been rendered for less actual cost to the insur-

ance company than good, first-class first aid would have cost.

Manufacturers must awaken to facts,—the sun is rising, or perhaps they, as a party to the transaction, will be defending real malpractice suits. We are not an alarmist, for years of experience have contributed to these conclusions. Every effect has a contributory cause. Now let the cause, the many causes, be corrected, and manufacturers will see the average rate reduced and otherwise more liberal contracts.

The change must come. Poor and unworthy the company, or the agent, who invites the assured to do just those things which are against his better interests, but most of all against the interests of the business world.

The injured employee, because he gets something for nothing, submits to the torture of "full aid" and his condition is much worse than it would be, made so by doctors who cannot do the case justice, and sometimes, would not if they could, because so poorly paid. Office calls are demanded, when the poor sufferer can hardly "hobble," because the poorly paid doctor will not make the house call—it takes too much time.

There is a large army of men and women with mangled arms, poorly amputated, deformed arms and legs, because fractures have not been properly reduced; blind, and made so by poor treatment, etc., etc.

Cannot we urge more humanity and discourage commercialism in this barter?

If the manufacturer will render full aid, let him give the best, and pay the bill, but not serve the end of some avaricious insurance company, which needs to make this "competition feature" a method to secure an increased premium income, and give what they do give as cheaply as possible, and not alone cheaply, but usually cheap.

Will not our Medical Societies denounce such wholesale practices, for certainly they are interested to have all work done, well done.

The manufacturer may say he is satisfied, but are the results to the injured man what they should be?

SMITHSONIAN INSTITUTION.

Hodgkins Fund Prize.

In October, 1891, Thomas George Hodgkins, Esquire, of Setauket, New York, made a dona-

tion to the Smithsonian Institution, the income from a part of which was to be devoted to "the increase and diffusion of more exact knowledge in regard to the nature and properties of atmospheric air in connection with the welfare of man."

In the furtherance of the donor's wishes, the Smithsonian Institution has from time to time offered prizes, awarded medals, made grants for investigations, and issued publications.

In connection with the approaching International Congress on Tuberculosis, which will be held in Washington, September 21, to October 12, 1908, a prize of \$1,500 is offered for the best treatise that may be submitted to that Congress "On the Relation of Atmospheric Air to Tuberculosis."

The treatise may be written in English, French, German, Spanish or Italian. They will be examined and the prize awarded by a committee appointed by the Secretary of the Smithsonian Institution in conjunction with the officers of the International Congress on Tuberculosis.

The right is reserved to award no prize if in the judgment of the committee no contribution is offered of sufficient merit to warrant such action.

The Smithsonian Institution reserves the right to publish the treatise to which the prize is awarded.

Further information, if desired by persons intending to become competitors, will be furnished on application.

CHARLES D. WALCOTT,
Secretary, Smithsonian Institution.

Washington, February 3, 1908.

News

Dr. George P. Lowrie and Dr. George P. Cooley, of Detroit, have been appointed assistant surgeons for the Michigan Central Railroad.

Smallpox has been reported in Jackson, Burr Oak, Calhoun county, Monroe Center, and in lumber camps near Cadillac.

Scarlet fever is epidemic at Kingsley and Shepherd.

At the June meeting of the American Medical Association in Chicago special entertainment is to be afforded visiting women physicians by the Women's Alumnae Committee, the Women's Medical Society of Illinois, and the Women's Medical Club of Chicago. There will be a banquet and entertainment on the evening of June 2.

The Cook Sanatorium at Belding, owned and conducted by Dr. A. B. Spinney, was destroyed by fire on February 7.

Dr. William P. Lane has resigned from the position of medico-legal expert of the council committee on claims and accounts in the city of Detroit, and will be succeeded by Dr. Frank T. Lodge.

Dr. McConnell, of Ludington, has presented to the local Carnegie library 66 volumes of medical works.

The Detroit Board of Health has submitted a request to the city for an appropriation to pay four nurses to look after school children. These nurses would supplement the work of the school medical inspectors, who can do nothing more than detect sickness in pupils and send them home. If the parents cannot properly care for such children, a nurse will be sent to give proper directions and assist in any way possible.

Dr. A. Lenhard, of 1147 East Grand Boulevard, Detroit, suffered the loss of his barn by fire on February 4.

Dr. F. T. Carlton, of Albion, has been elected secretary of the National Child Labor Committee to succeed Attorney L. W. Goodenough of Detroit.

A Hospital School for Crippled Children has been started in Detroit.

Dr. and Mrs. C. B. Burr, of Flint, have left for a trip to Europe. During Dr. Burr's absence, Oak Grove will be in charge of Dr. H. E. Clarke, assistant medical director. Dr. Clarke will see prospective hospital patients in consultation with and at the request of physicians. Telephone Main 1418, Detroit.

Dr. A. B. Simonson, chief surgeon of the Calumet & Hecla staff of physicians, spent a part of February with his family in Florida.

Dr. C. H. Rodi, of the Tamarack staff, is spending a vacation of four weeks in Arizona and Mexico.

Dr. J. S. Hamilton, formerly interne in Harper Hospital, who for the past year and a half has been assistant to Dr. W. K. West, of Painsdale, leaves the services of the Copper Range Consolidated March 1st to engage in private practice in Detroit. For six months he will assume the practice of Dr. H. Wellington Yates, who will spend the time abroad. He will be succeeded by Dr. L. W. Childs, of Baltic, and Dr. Arthur Jones, now interne at the hospital, will succeed Dr. Childs as assistant at Baltic.

Dr. E. T. Abrams, of Dollar Bay, has been appointed as one of the Upper Peninsula members of the newly formed Michigan Anti-Tuberculosis Committee.

The house staff of Harper Hospital, Detroit, has organized a little society for scientific study.

Dr. W. J. Merdian, of Detroit, has returned from a trip to Europe.

Dr. G. E. Henson, formerly of St. Clair, has removed to Florida.

Dr. W. E. Wilson, of Grand Ledge, is the new president of the State Board of Pardons.

The Detroit Clinical Laboratory made 3,000 examinations during 1907.

Marriages

Albert Harvey Miller, M. D., Gladstone, to Miss Gertrude Adams, Sault Ste. Marie, December 31.

Addison B. Clifford, assistant surgeon U. S. N., Ypsilanti, to Miss Grace Kathleen Emmons, Detroit, January 1.

George Raymond Pray, M. D., to Miss Zoe King Porter, both of Jackson, February 1.

C. S. Wilson, M. D., to Miss Grace W. Smith, both of Detroit, January 18.

Deaths

Oliver Cromwell Comstock, M. D., formerly of Marshall, died at Brookline, Mass., August 10, 1907, aged 88.

Frank L. Leckner, M. D., a member of the Michigan State and Wayne County Medical Societies, died at his home in Detroit January 30, after an illness of sixteen months, aged 49.

Henry Going, M. D., M. R. C. S., for many years a practitioner of London, Ont., but recently of Detroit, died January 27, at his old home in London, aged 92.

C. H. Morse, M. D., a graduate from Harvard in 1868, died at his home in Marquette on February 3.

Resolutions Passed by the Eaton County Society on the Death of Dr. William Parmenter.

WHEREAS, Death has removed Doctor William Parmenter from membership of the Eaton County Medical Society, and

WHEREAS, We, the members of the Society, recognizing him as our personal friend, and one of our older and most valued counselors and advisors, and one who came into the activities of our beloved profession in the earlier days of its history, and endured so many of the hardships and deprivations incident to the practice of medicine in the early days. Therefore, be it

RESOLVED, By this Society: That we recognize his sterling worth as an able and learned physician, and a true Christian Gentleman, and one, who by his example and fidelity, did so much to the cause of his fellow men that we desire to have his example perpetuated by having these resolutions recorded in our journal. And be it further

RESOLVED, That a copy be sent his family, and to the Journal of the Michigan Medical Society, of which the deceased was an honored member.

C. B. ALLEN.
A. W. ADAMS.
E. C. PALMER.

Persistent bleeding or irregular prolonged menstruation is very suggestive of uterine fibroids.

Persistent hemorrhage after the extraction of a tooth is often relieved by the application of trichloracetic acid. If the hemorrhage does not cease after its application, tamponade of the cavity is the next best available means of stopping the flow of blood.—*Am. Jour. of Surg.*

Progress of Medical Science

MEDICINE.

Conducted by

T. B. COOLEY, M. D.

The New Tuberculin Tests.—A good deal of literature has appeared recently regarding the relative and absolute value of Pirquet's skin reaction to tuberculin and the eye reaction of Wolf-Eisner and Calmette. Both tests are made with more or less dilute solutions of old tuberculin, which in Pirquet's test is applied to a small superficial skin incision, while in the Calmette test it is dropped into the eye. The reaction in the one consists in the appearance of a small papule at the site of inoculation after a period of from a few hours to several days; in the other in a conjunctivitis of greater or less severity. Recent reports show great divergence in results obtained.

HUTCHINGS (*Therapeutic Gazette*, Dec. 15, '07) describes the eye test, reviews the literature and reports 20 cases. He worked with 1% solutions made from a tuberculin purified by himself from Parke, Davis & Co.'s material and from dried material prepared by Parke, Davis & Co., for experimental use; also with Calmette's solution, which he thinks produces an unnecessarily severe reaction. He obtained a reaction in one case of latent tuberculosis of the lungs, and failed to obtain it in a case of tuberculosis of the left kidney, active last summer, a case of healed tuberculosis of the kidneys, and two cases suspected of being tuberculous peritonitis. No case not known to be tuberculous reacted.

FREER (*Münch. med. Wochensehr*, Jan. 7, '08) reports results from 344 children tested by Pirquet's method, and 50 by Calmette's. He believes Pirquet's test to be more certain, easier to observe, and less unpleasant to patient. The diagnostic value he considers about the same as that of the subcutaneous injection of tuberculin, without the unpleasant and sometimes dangerous constitutional and focal reaction. Negative results do not exclude tuberculosis, as cachectic patients and cases of miliary tuberculosis or tubercular meningitis in late stages often do not react. Several cases did not react to a 1% solution (made with 2% boric acid) in the eye, which did react to a 25% solution on the skin. A 1/2% solution often gives a doubtful reaction, while 1 1/2 in the child's eye frequently causes an alarmingly severe inflammation. He was unable to confirm in children the occurrence of reaction in a healthy individual on a second test eight days after the first, as has been observed by others in adults.

MAININI (*Münch. med. Wochensch.*, Dec. 24, '07) reports 208 cases tested by Pirquet's method with a 1:80 dilution of tuberculin, and 100 cases by Calmette's method of 5% tuberculin. The most striking thing about his statistics is that out of 111 adults in whom there was no cause for suspicion 89 gave the skin reaction while of 56 similar cases subjected to both tests 50 gave the skin reaction and only 8 the eye reaction. He concludes that all tuberculous individuals except the very advanced cases give both reactions; that the reactions are probably, but not certainly, specific, and that the skin reaction often occurs in latent or healed cases, while the eye reaction seldom does.

WIENS AND GUNTHER (*Ibid*) report from the Breslau clinic results obtained with 1/2% and 1% solutions prepared according to Calmette's method, and conclude that the 1% solution prepared in this way is likely to cause dangerous inflammation of the eye, while the 1/2% solution gives doubtful results.

KLIENEBERGER (*Ibid*) in the Königsberg clinic, made the eye test with 1% solution (Calmette's). Out of 46 clinically non-tuberculous patients 8 reacted to the first instillation, and 36 to the second. The severity of the reaction on the second instillation was noteworthy. He does not agree with others that reaction to a second test indicates latent or healed tuberculosis, but regards it as a "hypersensitivity reaction."

SMITHIES AND WALKER (*Journal A. M. A.*, Vol. 50, P. 259) report exhaustively on 242 persons tested at the University of Michigan by Calmette's method with a 1% solution prepared from Parke, Davis & Co.'s tuberculin. They discuss theoretical considerations with some detail. 198 of the 242 persons did not react, 39 gave positive reaction, 5 were doubtful. All the cases of active tuberculosis reacted, and 10 which were not clinically tuberculous, of whom 3 gave histories of old tubercular process. Six persons supposed to have been at one time tuberculous did not react.

They conclude that the reaction is of distinct diagnostic value, but does not always indicate an active process, and should be supplemented by careful physical examination.

Their statement that the tuberculin used by them was "essentially tubercle bacilli, or fragments of such," is rather surprising.

SURGERY

Conducted by

MAX BALLIN, M. D.

A Conservative Treatment of Sarcoma:

Sarcomas fall into two clinical classes: those relatively benign, comprising the majority of the central sarcomas of long bones, the myelomas, giant-celled sarcomas, and certain fibro-sarcomas, which may be eradicated by simple resection, enucleation, or, at times, even by curetttement, and those very malignant, including the periosteal sarcomas of long bones, the melanotic, small round-celled and neuro-sarcomas, which almost invariably lead to death within a few years after their appearance, despite the most thorough excision, resection, or amputation known to surgery. Early and more radical operative measures of great value in combatting carcinoma have increased the early mortality and have not clearly decreased the tendency to recurrence and metastasis in sarcoma. High amputation, usually unnecessary, and unjustifiable for the more benign sarcomas, usually is unavailing against the more malignant. Thus, of 68 cases of amputation for periosteal sarcoma of the femur collected by Ballin, only one patient was known to be alive three years from the time of operation, and in this case there was doubt as to the periosteal origin of the tumor. Of the very malignant tumors, sarcomas are most prone to spontaneous disappearance, or to retrogression after X-Ray treatment, the injections of certain toxins, or after pyogenic infections; on the other hand they are least amenable to radical operative treatment. Traumatism is the most powerful localizing agent for the primary growth in sarcoma; operative traumatism the most powerful localizing agent for the recurrent growth; in other words, excise, resect, amputate where you will the return of the sarcoma usually will be in the scar. Operative traumatism should, as far as possible, be limited to the field of the sarcoma, so that the recurrence may not be invited to a new or distant point. The life and growth of the primary sarcoma rarely directly cause cachexia or a fatal issue, the death and decomposition of the tumor-cells are the most potent factors in the

production of cachexia and a frequent cause of death of the patient. The duration of life, therefore, is often measured by one's ability to combat necrotic processes in the tumor. Pending the development of better therapeutic agents, the combination of (a) judicious subcapsular enucleation, (b) massive and prolonged Roentgenism, (c) the topical employment of methylene blue or pyoktanin, and (d) occasionally the internal administration of certain drugs and toxins are commended as offering results in the treatment of the very malignant or recurrent types of sarcoma superior to those obtained by the most extensive and desperate surgical eradication.—W. WAYNE BABCOCK, M. D. AND G. E. FFAHLER, M. D., *Surgery, Genocology and Obstetrics*, Feb., 1908.

The Value of the Differential Leucocyte Count in Acute Appendicitis.—Blood examination in cases of acute appendicitis is of great value in determining the severity of the condition and therefore deciding whether or not immediate operative interference is indicated. The degree of leucocytosis, formerly considered an important diagnostic aid, is too variable to be of any practical value. The relative disproportion between the percentage of the polyneuclears and the degree of leucocytosis is reliable in the majority of cases, but the number of exceptions is so great that its practical value in determining immediate operation becomes very small. The estimation of the percentage of polyneuclears alone is more reliable than either of the preceding methods, and therefore, together with the fact that it is the one most easily made, the method to be recommended. A polyneuclear percentage of 90 per cent or more, indicates a severe process that needs immediate operative interference; a percentage below 76 per cent means a "safe" or mild process; a percentage between the two extremes speaks for the one condition or the other according as it approaches the one extreme or the other.—ALERED H. NOEHREN, *Annals of Surgery*, Feb., 1908,

PHARMACOLOGY AND THERAPEUTICS

Conducted by

H. A. FREUND, M. D.

The Medical Treatment of Nephrolithiasis Urica.—The treatment of this disease concerns itself first with prophylactic measures. This means the prevention of uric acid and urate deposits by increasing the solubility of the urinary uric acid to a maximum, and reducing the urinary excretion of uric acid to a minimum by proper dietetic regulations. At the same time the reaction of the urine should never be allowed to remain too strongly acid.

CROFTAN gives a very rational *résumé* of the subject of uric acid excretion. He does not enter into the details that have led to so much discussion in the literature during the past few years, but treats the subject of the formation and the treatment of uric acid calculi from a purely medical standpoint.

Uric acid is derived from the nucleins of the food and from the nucleins of the body. The former can be controlled, whereas the latter cannot. The author takes up the effects of the different food stuffs first of all. He believes that the moderate ingestion of meat is not only permissible, but necessary. The administration of nucleins or extractives should be reduced. This interdicts all the internal organs (liver, spleen, kidneys, etc.), as well as the extracts, broths and gravies. Raw, smoked and cured meats are also bad. To exclude poultry is preposterous. The best way to prepare meats of any kind is to boil. Eggs may be permitted in moderation. Milk in addition to mixed diet is well borne, but the exclusive administration of milk is bad on account of the large quantities of water that must needs be taken. Although it has been argued that fats should be omitted from any such dietary, their addition is indispensable, for they make up the total number of calories that are necessary to maintain a full nutrition when the patient is taking a full amount of physical exercise. Carbohydrates exercise no bad effects upon the uric acid excretion, and if not taken to excess causing gastro-intestinal disorders are well borne. With the exception of celery and onions, vegetables and fruits of all kinds may be allowed.

Much has been said on the subject of the different kind of fluids that are permissible. Water should be the chief beverage. Though plenty of water may be taken, its excessive use is as detrimental as its reduction. One to one and a half liters per day is about the proper amount. Mineral waters as a class do not possess any virtue.

Those that have an abundant quantity of calcium are the most desirable. Tea and coffee are considered bad. They contain some of the bases from which uric acid is derived and hence are likely to increase its excretion. All alcoholic beverages are to be avoided.

In order to decrease the acidity of the urine the administration of sodium bicarbonate or the giving of calcium salts brings about the desired results. The former increases the sodium in the blood while the latter diminishes the phosphoric acid. The latter method is the better procedure and is accomplished by the use of fifteen to twenty grains of calcium carbonate three times daily. The danger of the sodium salts are that they are likely to cause phosphatic calculi, to say nothing of the effect on the digestive tract and on the blood corpuscles.

CROFTAN roundly scores the so-called uric acid solvents. The urinary antiseptics are of value only in preventing infectious organisms from forming a nidus for stones. Urotropin alone has some claim to a solvent in nephrolithiasis, as in splitting off formaldehyde in the body it permits the latter to combine with the uric acid and form soluble compounds. Its dose is from five to ten grains taken three times daily in a full glass of water.

For the symptoms of pain some of the local applications are first to be tried. For dull heavy pain, heat is the most grateful. Cold is to be applied in severe renal colic that comes in paroxysms. Often stups of belladonna or turpentine are useful when applied to the lumbar region. If none of these relieve then opium in large doses, either as morphine, or as the tincture or powder, in starch enema or in a suppository, should be employed. At times a hot bath, an enema containing chloral up to twenty grains, or a few whiffs of chloroform will produce relaxation of the muscular spasms and facilitate the passage of the stone.

For renal hemorrhages, when slight, rest in bed and a purge is sufficient. If persistent the fluid extract of ergot is recommended by Croftan to be administered in doses of fifteen to thirty drops by hypo. The author has also used tan-nigen, ten to thirty grains in powder; the fluid extract of hydrastis, fifteen to sixty minims, and the hydrochlorate of hydrastinin, one-half to two grains, with much benefit.—*Illinois Medical Journal*, January, 1908.

PATHOLOGY AND BACTERIOLOGY

Conducted by

C. S. OAKMAN, M. D.

The "Ophthalmic-diagnostic" of Typhoid Fever.—A. CHANTEMESSE describes the preparation and use of a diagnostic material from typhoid bacilli, in the form of a dry stable powder, or a sediment whose stability is not yet proved. In more than 200 application to the eye it has never produced the slightest harm. The substance can be used only in an entirely healthy eye; the other eye is used for comparison. The extent of the reaction depends upon the sensitiveness of the individual mucous membrane and the quantity of the substance introduced. The dose tested by the author causes no reaction in healthy individuals, nor in those afflicted with other diseases, but in typhoid patients it causes after several hours a redness, lachrymation, and delicate fibrinous exudate. The reaction may still be seen after 48 hours.

In 70 typhoid cases the substance never failed; frequently the serum diagnosis was not obtained till several days later. In 50 non-typhoid cases neither the ocular-diagnostician nor the serum reaction was positive. One tuberculous patient showed transient redness of the eye, but she had probably suffered from typhoid two years previously.—*Deutsche med. Wochenschr.*, 1907. S. 1572.

The Results of Modern Typhoid Research and its Significance in Medical Practice.—DASKE describes the immunization of man against typhoid and concludes that it is to be regarded as a scientific, well warranted procedure. Not every organism, to be sure, is qualified to form antibodies, on inoculation. In this way are explained the recurrences and renewed infections occurring sometimes after typhoid. Moreover if an organism possesses adequate protective material, many strains of typhoid are hardly influenced at all by a bacteriolytic serum. The protection by vaccination appears to depend on the intensity and number of reactions, and in general to last only for a year. The present customary procedure is not sufficiently safe and simple.—*Zeitschr. f. ärztl. Fortbildung.*, 1907. No. 16.

Arteriosclerosis in the Young.—FREMONT-SMITH assembles many reports and opinions concerning arteriosclerotic conditions in the young. The increased proportion of thorough necropsies shows a more frequent occurrence of arterial change than was formerly supposed to exist. Infants rarely present evidences, but children over

two years show signs in constantly increasing ratio with their age. Heredity, congenital syphilis, and infectious diseases are the chief causes. These conditions have produced characteristic vascular changes in very young infants, and even in the foetus, and acute infectious diseases affecting the mother have been reported as producing vascular degeneration in the foetus. Particular attention has been given recently to the role played by infectious diseases in causing arteriosclerosis in the young, and especially in typhoid fever. The work of Wiesel on this subject is reviewed; he made complete studies in 300 autopsy cases, 80 of which showed vessel changes, 20 due to diphtheria, 20 to scarlatina, and 40 to other infections, such as measles, pneumonia, influenza, sepsis, osteomyelitis, otitis, typhoid, and meningitis. In many cases the evidences of degeneration were macroscopic, minute yellowish patches in the aorta, carotids, and coronaries, and occasionally calcareous deposits. Microscopically the findings were quite constant, including serous infiltration of the media, diastasis of muscle fibers, vacuoles between the fibers, displacement of elastic fibers and subsequent rupture, with necrosis of the musculature. The intima was not usually involved. The changes are most marked in the peripheral arteries. Wiesel is uncertain as to the ultimate outcome of the changes produced by these acute processes, but believes that regenerative changes take place. What influence these degenerative phenomena may have on the advent of sclerosis in later life, it is impossible at present to state, but it is reasonable to presume that vessels once weakened are less capable of resisting undue strains that they may be subjected to in after years.—*Amer. Journ. of Med. Sc.*, Feb., 1908.

Experimental Study of the Functions of the Parathyroid Bodies.—PFEIFFER and MAYER devote 63 pages to the detailed report of long series of experiments on dogs and mice, which confirm the assumption that postoperative tetany is the result exclusively of the loss of parathyroid functioning. They do not believe that the hyper-toxicity of the urine is due to any special tetany toxin, but think that it is merely the symptomatic expression of the increased metabolism during the attacks. Other findings supply an experimental basis for the clinical findings of Escherich in respect to the constant morbid changes in the parathyroid bodies in children who exhibit a tendency to tetany.

NEUROLOGY.

Conducted by

C. W. HITCHCOCK, M. D.

Pseudo-Myasthenia of Toxic Origin.—SIR WILLIAM P. GOWERS reports an unusual result of the toxic influence of petrol-fumes. The patient, a major in the army, at 38, had, at first, a peculiar perversion of taste, so that all sweet things had a salty taste. This soon passed away, but swallowing caused a tight feeling of the throat and finally he could only swallow jellies, soups, etc., being unable to chew solid food, although the masseters contracted fairly well. Palate movements seemed normal and there was no regurgitation. When he began to speak his voice seemed normal but on continued use it became feeble and articulation impaired. The palpebral orbiculars were weak, the angles of the mouth moved but feebly. Sensation and electrical reactions were normal. The optic discs were clear, and all reflexes were normal. There had been some attacks of pain in the chest, a sensation of a painful strain across the level of the lower part of the sternum, passing down to the umbilicus and extending up to the throat.

He had been superintending the testing of petrol engines in a closed shed and continually exposed to fumes of petrol, doubtless imperfectly burned. Strychnine hypodermically brought prompt improvement. A year later he was seen again with similar symptoms following a like exposure to petrol fumes. He was ordered to permanently relinquish his work and resume his strychnine, and he was not again seen.—*Rev. of Nerv. and Psych.*; January, 1908.

Fundamental Principles in the Treatment of Functional Nervous Diseases with Especial Reference to Psycho-therapy.—Though his statement, he says, may be viewed with suspicion, COLLINS affirms that a correct diagnosis is by no means necessary to the successful treatment of many neuroses and cites in support the work of the charlatans, osteopaths, christian scientists. All of which goes to show the easily calculated influences of mind over body and how many are using this influence meretriciously outside the profession, as also the discredit to which our neglect of so important an influence inevitably tends. Even in the organic diseases, moral treatment is highly effective, for medicine by itself is so often worthless.

Much work with neuropaths forces the lesson home that it is the plan of treatment embracing many measures and seeking to overcome want of self-reliance, that is really most efficient for the good of our patients. DR. COLLINS is opposed to the idea that special skill is necessary and believes the general practitioner should study psycho-therapy just as he studies the management of typhoid. The patient must first be convinced that his disorder is understood. One of the things that much impresses nervous patients

is the realization that the physician knows without being told what his symptoms are. To this both experience and intuition may contribute. It is well known that the neurasthenics and psychasthenics often have great difficulty in formulating a bill of particulars and in such cases the psycho-analytic method is of great importance. To deliver the neurasthenic or psychasthenic from the painful reminiscences which seem to possess a "traumatic" value and act as the stimulus of an irritation on the nervous system is the important thing and to this end psycho-analysis is all important, though often a long and difficult task.

Neurasthenia is a sign of the times and flourishes in strenuousness, but psychasthenia has its origin in a neuropathic constitution which is inherited. Its chief mental symptoms are obsessions which take autocratic possession and are inimical to ordinary habits of thought. The patient himself realizes this, discusses it, and reasons about it, but feels himself powerless to prevent. Some form of tic is the most striking mental feature, either simple or associated, and these are accompanied by that more common distinguishing feature, an absolute lack of self-reliance. The psychasthenic is irresolute, self-deprecatory, and timorous.

As to treatment, both the patient must be treated, and the chief factor of the disorder, viz., heredity. The neurasthenia is more easily cured but for the psychasthenic a more searching psychotherapy is needful. Doubt must be eradicated, fear conquered, despair dispelled, and a spirit of self-reliance engendered. In order to do this, one must have it in himself. The suggestion that emanates from environment, isolation, verbal assurance, from proper emphasis on evidences of recovery, is here most important and of far-reaching value. To this end the study of Plato and Emerson, upon which the patient is to concentrate his attention, has been of help. When such concentration is possible, recovery is not far away, for morbid thoughts are shut out. Gradually a re-education of will-power, an intensification of intelligence and an expansion of sentiment are brought about and the patient's resources are increased. Many patients are thus restored to lives of usefulness.

A great trial is that class neither neurasthenic nor psychasthenic who are perpetual doubters, finding it difficult to realize that the Lord and the law are satisfied with one's best and that what is one's best yesterday is not one's best today. These are neuropaths or deviates. Bad inheritance and bad bringing up have conditioned their state. Paternal and pedagogical co-operation would lessen misery and diminish the number of neurasthenics and psychasthenics.—*The American Journal of the Medical Sciences* for February, '08.

OPHTHALMOLOGY.

Conducted by

W. R. PARKER, M. D.

Blindness from Cerebral Thrombosinusitis Following Phlegmonous Tonsilitis.—In a male, aged 20, an acute intense exophthalmos of the right eye with swelling of lids and chemosis developed, accompanied by headache, chills, vomiting and intermittent fever, together with acute phlegmon of the right tonsil, which recurred several times. Almost simultaneous blindness and immobility of the pupil of the right eye set in, soon followed by the same symptoms in the left eye, but without exophthalmos. Two days after the occurrence of exophthalmos the right internal jugular vein was felt as a hard cord. A relapse of tonsilitis occurred on the thirty-sixth day of the disease accompanied by affection of the lungs. Under mercurial inunctions the patient recovered within two and a half months, with atrophy of both optic nerves, total blindness of the right eye and the preservation of a sector in the upper nasal quadrant of the left eye. The diagnosis was thrombosis of the orbital veins with or without thrombosis of the cavernous sinus.

The explanation of the infection was as follows: "The venous blood of the tonsil flows through the palatine vein into the internal jugular, above the entrance of the external jugular, communicating with the cavernous sinus indirectly through the superior petrosal sinus and transverse sinus, directly through the inferior petrosal sinus which anastomoses with the bulb of the vein. Apparently a thrombo-phlebitis of the palatine vein, caused by the purulent tonsilitis, was propagated to the cavernous sinus and the ophthalmic veins, creating the right exophthalmos.

Through the circular sinus of Ridley the left cavernous sinus and the intracranial portion of the ophthalmic vein were reached, perhaps by partial thrombosis, as there was no exophthalmos of the left eye.—K. SECCEL, *Klin. Monatsblaetter f. Augenheilkunde*, Aug., Sept., 1907.

The Prophylaxis of Ophthalmia Neonatorum.—After giving a history of the treatment of ophthalmia neonatorum, and showing the great results obtained by careful treatment the writer gives the following conclusions:

1. That the responsibility for the control of ophthalmia neonatorum rests with the state and

should find its expression through the department of public health.

2. The duty of pointing out its dangers, its prevalence, its prophylaxis and its treatment and suggesting measures for its relief through the proper channels remains with the medical profession.

3. To wipe out this disease as a cause of blindness the public must be better informed concerning it, through various social organizations, the material coming from some authoritative body like the American Academy of Ophthalmology.

4. To accomplish effective work a concerted effort should be made to secure uniform laws governing the midwives in the several states and in federal territory, such as exists in many European countries, and putting them under the surveillance of the department of public health. If the midwife is to be held responsible for a failure to employ prophylaxis it is only just that a pure and safe preparation should be put in her hands. The centralization of the authority for the control of the midwives in the state department of health would contemplate an examining board and registry in every county of each state.

"A disease occurring sporadically and which is endemic can be controlled only by organized and concerted effort. It is most important, therefore, in order that no false move be made, that the procedures to be determined upon should originate with the ophthalmologists and obstetricians. Their practicability must be assured by those expert sanitarians engaged in public health work. Then the measures recommended should be carried out by an organized movement in every state in the Union. A state committee should be appointed and through this should be secured the appointment of a like committee in each county. This latter body would ultimately become the board of examiners for midwives. It would be most desirable if in every instance the local health officer should be a member of this committee. Such a general and concerted effort made throughout the country would in a comparatively short time so limit infections and improve methods of treatment that the disasters following ophthalmia neonatorum would practically cease—that this prolific cause of blindness would be controlled—millions would be saved to the commonwealth and the happiness and efficiency of humanity enormously augmented."—LEWIS F. PARK, *Am. Journ. Ophthalmology*, Oct., 1907.

GENITO-URINARY SURGERY.

Conducted by

W. A. SPITZLEY, M. D.

The Conservative Treatment of Tuberculosis of the Genitourinary Organs.—MR. GODLEE of London brings forward strong evidence as to the value of a conservative line of treatment in this so often unfavorable class of cases. It is his belief that tuberculous disease of the genito-urinary tract is at least as chronic as, and perhaps even more disposed to undergo spontaneous cure than, that of other parts.

In renal tuberculosis GODLEE is opposed to removal of the affected kidney if it causes no decided symptoms, even should the evidence be against the presence of any disease in the other, and of this he thinks it is impossible to be sure even by modern methods, such as ureteral catheterization, and he believes that there is a chance of the unaffected kidney escaping for a long time or altogether if the affected one be not removed. But even if the symptoms are sufficiently severe to warrant exposure of the kidney, the cautious surgeon will always select the least serious operation. In those cases in which the organ has been converted into a mere shell of renal tissue, enclosing large collections of cheesy matter, nephrectomy is, of course, imperative, but where the disease is confined to localized patches of tubercle, while the remainder of the kidney is normal or moderately so, it is better to trust to the recuperative powers of nature and to remove only what is absolutely diseased. Cases in which the principal symptoms are due to pyelitis are best left alone if there are no symptoms, or drained if there are, unless the ureter is blocked, in which event the kidney is bound to become disorganized and nephrectomy will be required.

Turning to tuberculosis of the bladder, GODLEE likewise advocates a conservative line of procedure. Too active treatment in tuberculous cystitis may do harm, and if the catheter or cystoscope be employed, this should be done under the most rigid antiseptic precautions.

In tuberculosis of the testicle GODLEE has given

up removing every tuberculous testicle, however quiescent, if no signs of tubercle could be found elsewhere, because it has so often led to disappointment, the patient returning before long with the opposite testicle affected, and he is equally opposed to extensive operations upon the vas deferens and seminal vesicles. On the other hand if one testicle is completely disorganized, or if it be causing much pain or inconvenience, its removal, together with as much of the vas as can be reached, is indicated, although even here he has found that in most instances the removal of the epididymis is equally efficacious. Excellent results may also be obtained from thorough curettage. If later the other testicle becomes affected, it is preferable to excise or curette only what is obviously diseased, since when a small portion is left behind it furnishes sufficient secretion to prevent the undesirable sequelæ of complete castration.

One of the most interesting topics discussed in this lecture is the management of tuberculosis of the prostate gland. This will depend essentially upon whether an abscess or ulceration results, since even considerable deposits of tubercle may occur in the prostate without any symptoms whatever. If an abscess develops, perineal incision and possibly curettage of the prostate may be required, but otherwise—and even in cases of severe ulceration about the bladder neck—marked relief and an apparent cure may be brought about, provided renal complications be absent, by conservative treatment such as rest, hygienic measures, local applications and sedatives. Thoroughly adequate nutrition, sunlight and fresh air are just as valuable agents for combatting tuberculosis of the uro-genital tract as they are generally conceded to be in the care of phthisical patients.—*Editorial comment from International Journal of Surgery on views of R. J. GODLEE, Lancet, Dec. 14, 1907.*

OTOLOGY.

Conducted by

EMIL AMBERG, M. D.

Ear Affections in Diseases of the Genito-Urinary Tract.—The most frequent form of ear affection in nephritis is the otitis acuta hemorrhagica. (Schwartz, Trautmann, Buck.) There are ecchymoses on the drum membrane, or, the drum membrane is bulging on account of the filling of the tympanic cavity with blood. Pain may be present as well as more or less great hearing disturbances, which are usually combined with noises. Besides this form there is the common otitis media acuta (Roosa, Buerkner). The inflammation of the middle ear is a very important complication of scarlet nephritis. Several authors regard it as prognostically important, because there is an increase of discharge when the nephritis becomes worse, and vice versa. In Haug's case the symptoms of nephritis became less plain after opening of the mastoid process, but reappeared in full force when pus stagnation occurred, which was caused by granulations. Ear disturbances occur very frequently in affections of especially the female genital tract, in physiologic and in pathologic conditions. The external ear is comparatively seldom, more frequently is the middle and most frequently the inner ear affected.

Patients sometimes complain before each menstruation and pregnancy and before the climacterium of a burning sensation, sometimes of unbearable itching in the region of the auricle and of the external meatus. During the climacterium Sendziak observed extraordinary tenacious inflammations of the outer ear canal, either circumscribed (furuncles) or diffuse, also eczema and herpes auriculae.

Relatively frequent are hemorrhages from the ear preceding menstruation or replacing it (*Menstruationes vicariae*). An interesting case showing without any doubt the causative connection between diseases of the ear and disturbances of the genital sphere is given by Baratona, who observed hemorrhages from the genital organs after each operation for earpolyps. These hemorrhages are usually accompanied by an "aura" in the form of headache, noises and dizziness. Usually the hemorrhage is unilateral. The quantity differs. There may be a few drops, or an amount corresponding to that of the genital organs. Mostly the drum membrane is affected and the external meatus, namely the opening of the ceruminal glands, less frequently the middle ear, when there is a pus formation with granulations, and only exceptionally the inner ear. The physiologic conditions, especially in women (menstruation, pregnancy, climacterium), predispose to acute inflammatory processes similar as in the pharynx.

Also the existing pathologic conditions in the

hearing apparatus (suppurations) are frequently considerably aggravated as Bezold has shown, who examined these conditions especially. In one hundred and ninety cases of ear suppuration in women, he noticed seventeen and nine-tenths per cent made worse on account of functional disturbances. During menstruation, climacterium, and pregnancy the inner ear may be affected, which is proven by subjective noises and the more or less diminished power of hearing. The latter appears slowly and is little affected by treatment.

Pregnancy and sometimes puerperium have an unfavorable influence upon the function of the ear. The possibly present pathologic conditions of the ear can be considerably aggravated in these cases. Only exceptionally improvement of hearing and of the noises have been noticed after delivery.

Also endo- and parametritis, salpingitis, and neoplasma can cause ear disturbances. Scanzoni observed transitory deafness after application of leeches to the vaginal portion of the uterus.—DR. J. SENDZIAK, Warschau, *Archiv fuer Ohrenheilkunde*, Volume 73, Festschrift.

Paralysis of the Nervus Abducens in Otitis.

—There exists a typical clinical picture which is characterized essentially by acute suppurative otitis media, intense pain, especially in the temporal and parietal region of the affected side and by paralysis of the nervus abducens of the same side. Exceptionally, the clinical picture can be produced by a chronic middle ear suppuration which has become acute. In about half of the cases accessory symptoms can be present, which depend upon an irritation of the trigeminus and of the oculomotorius, or of the meninges. Sometimes reactive mastoiditis and circumscribed extradural lesions confined to the lateral sinus occur as complications. Usually, a complete cure results, and only rarely death. The pathological and anatomical process consists of a propagation of the infection of the tympanum to the tip of the pyramid by the way of the peritubal pneumatic spaces and the canalis caroticus. It is an osteitis confined to the tip of the pyramid and perhaps a corresponding pachymeningitis. Not all cases of paralysis of the abducens belong to this clinical picture. Among the most frequent are the deep extradural abscesses on the upper border of the pyramid. These extend toward the tip of the same, and also the diffuse osteomyelitic processes of the pneumatic part of the temporal bone which reach the tip of the petrous bone. These cases do not belong to the typical ones.—PROF. G. GRADENIGO, Turin, *Archiv fuer Ohrenheilkunde*, Volume 74, Festschrift.